

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 4705 - L2 Version 5
Chandra X-Ray Center

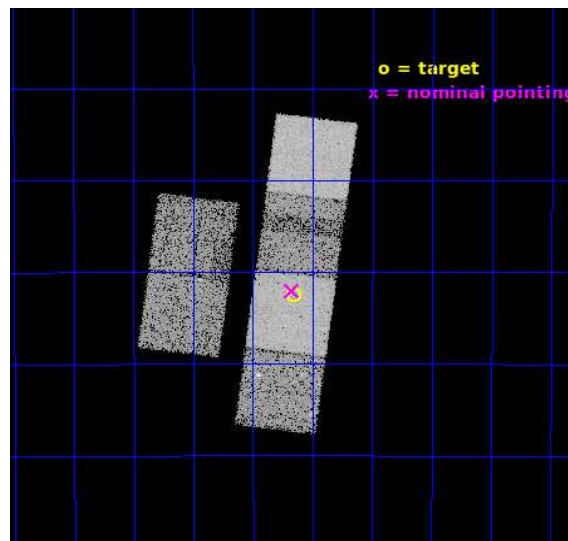
L2 Processing Date : Oct 1 2020

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1 Front

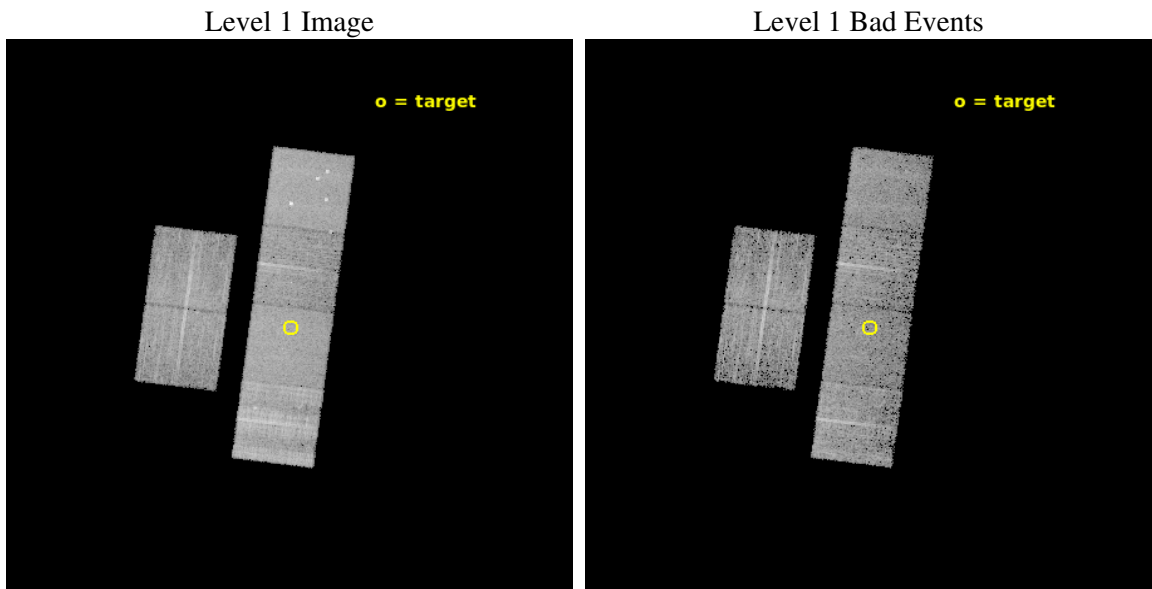
seq_num	600360	Sequence number
obs_id	4705	Observation id
title	Using the Sculptor Dwarf Spheroidal Galaxy to Constrain X-ray Binary Production in Population II	Proposal title
observer	Thomas Maccarone	Principal investigator
object	SCULPTOR DWARF SPHEROIDAL	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	15.039167	Observer's specified target RA [deg]
dec_targ	-33.708889	Observer's specified target Dec [deg]
ra_nom	15.043198326761	Nominal RA [deg]
dec_nom	-33.700557409963	Nominal Dec [deg]
roll_nom	97.337412818583	Nominal Roll [deg]
revision	5	Processing version of data
ontime	5907.199977994	Sum of GTIs [s]
livetime	5832.3994549838	Livetime [s]
ontime2	5907.199977994	Sum of GTIs [s]
ontime3	5907.199977994	Sum of GTIs [s]
ontime5	5907.199977994	Sum of GTIs [s]
ontime6	5907.199977994	Sum of GTIs [s]
ontime7	5907.199977994	Sum of GTIs [s]
ontime8	5903.95910725	Sum of GTIs [s]
l2events	93350	Number of level 2 events



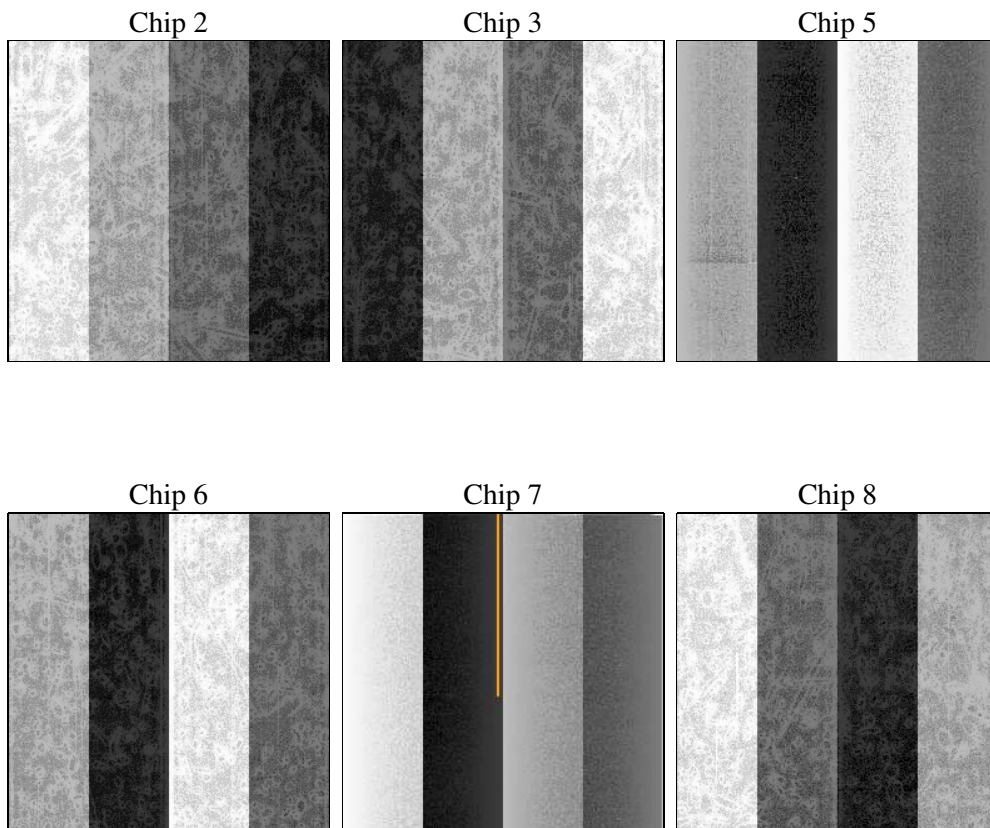
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5953.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	5907.199977994	Sum of GTIs [s]
caldsver	4.9.2	 	ontime2	5907.199977994	Sum of GTIs [s]
date	2020-10-01T15:00:25	Date and time of file creation	ontime3	5907.199977994	Sum of GTIs [s]
revision	5	Processing version of data	ontime5	5907.199977994	Sum of GTIs [s]
			ontime6	5907.199977994	Sum of GTIs [s]
			ontime7	5907.199977994	Sum of GTIs [s]
			ontime8	5903.95910725	Sum of GTIs [s]
			l1events	356626	Number of level 1 events

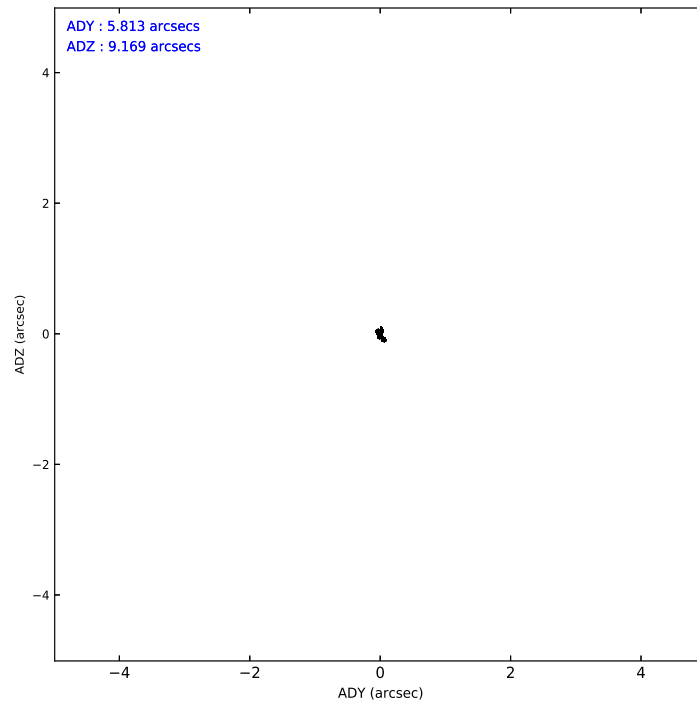
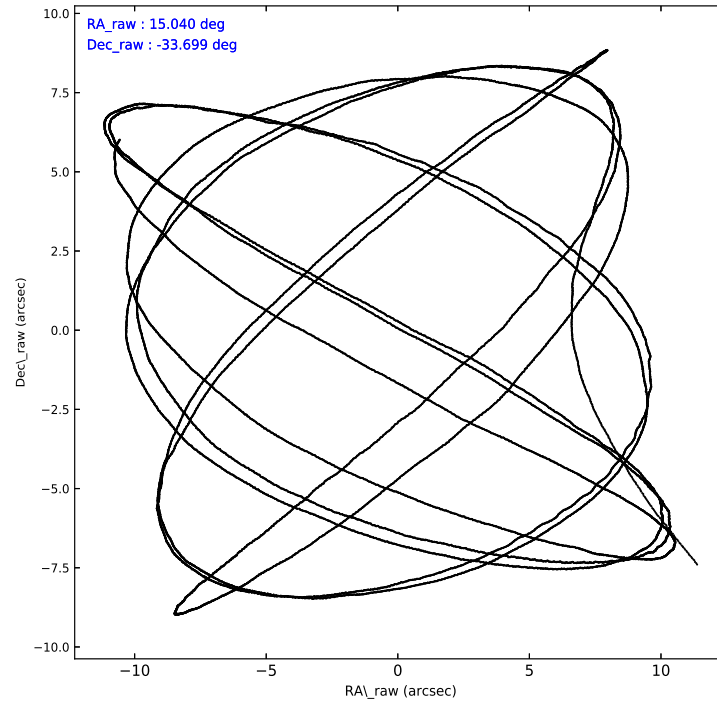
2.1.4 Events

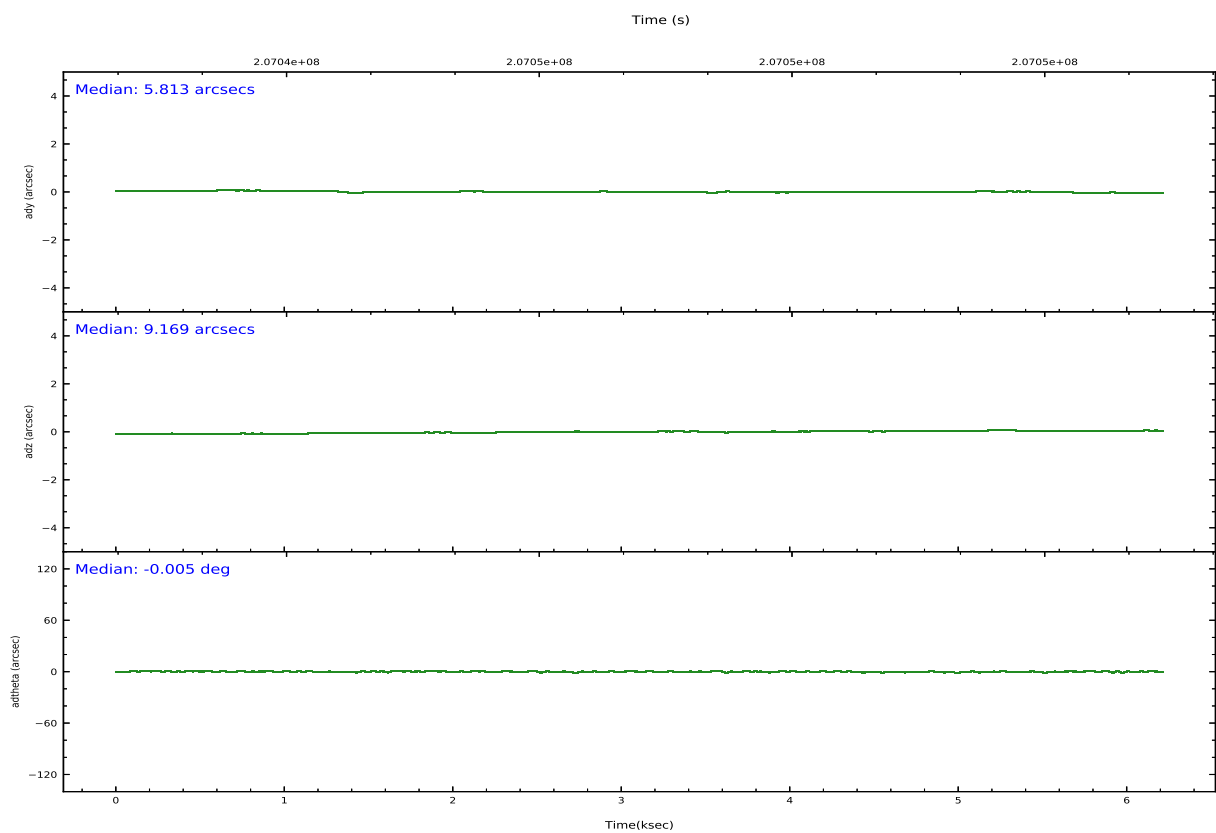
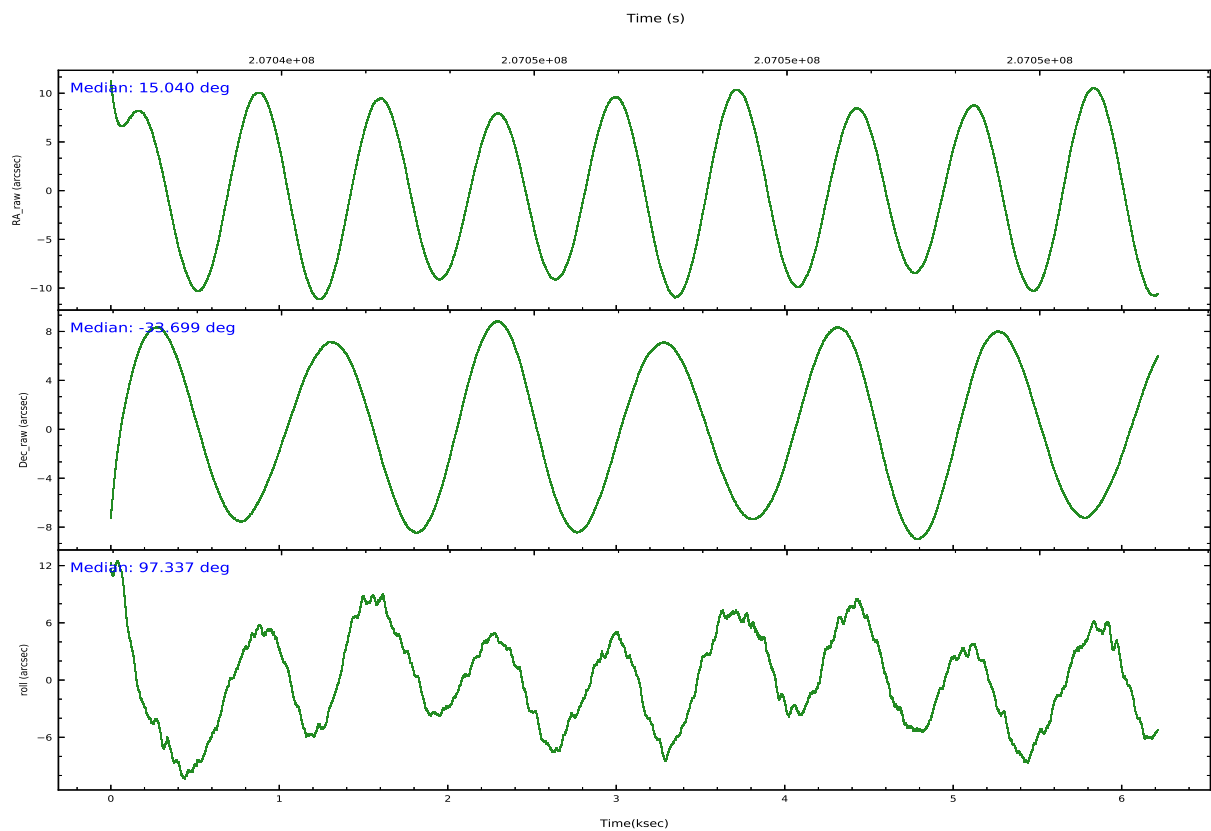
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	49130	47825	69044	47828	59971	82828	grade 0 events	4479	4368	5469	4665	3068	15625
rejected events	39858	38220	34812	37664	31929	43435		9%	9%	7%	9%	5%	18%
rejected %	81%	79%	50%	78%	53%	52%	grade 1 events	33	39	188	25	59	115
								0%	0%	0%	0%	0%	0%
							grade 2 events	2039	2535	10023	2877	5825	5637
								4%	5%	14%	6%	9%	6%
							grade 3 events	486	550	1642	507	2465	6238
								0%	1%	2%	1%	4%	7%
							grade 4 events	663	511	1549	530	2522	5700
								1%	1%	2%	1%	4%	6%
							grade 5 events	1620	1699	4675	1749	5126	2475
								3%	3%	6%	3%	8%	2%
							grade 6 events	1617	1652	15595	1594	14208	6225
								3%	3%	22%	3%	23%	7%
							grade 7 events	38193	36471	29903	35881	26698	40813
								77%	76%	43%	75%	44%	49%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar version number	8	8
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	15.059936	15.043198326761	Subarray requested	NONE	NONE
[deg] Pointing Dec	-33.720648	-33.700557409963	Alternating exposures requested	N	N
[deg] Pointing Roll	97.196099	97.337412818583	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	207043750.184000	207042747.34089			
Observation start date	2004-07-24T08:08:06	2004-07-24T07:52:27			
[s] Observation end time (MET)	207049703.184000	207050557.32874			
Observation end date	2004-07-24T09:47:19	2004-07-24T10:02:37			
Read mode	TIMED	TIMED			

2.3 Aspect



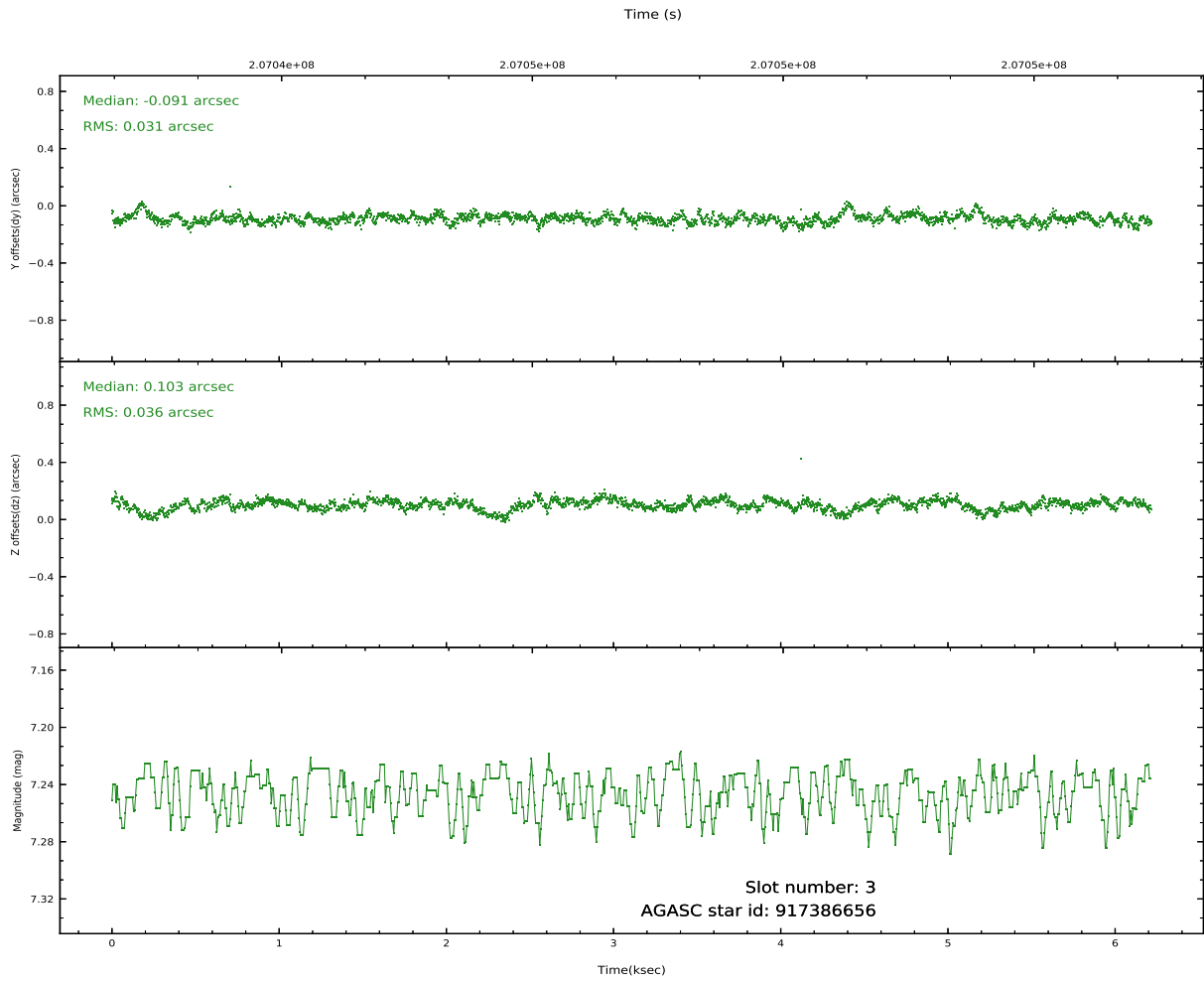
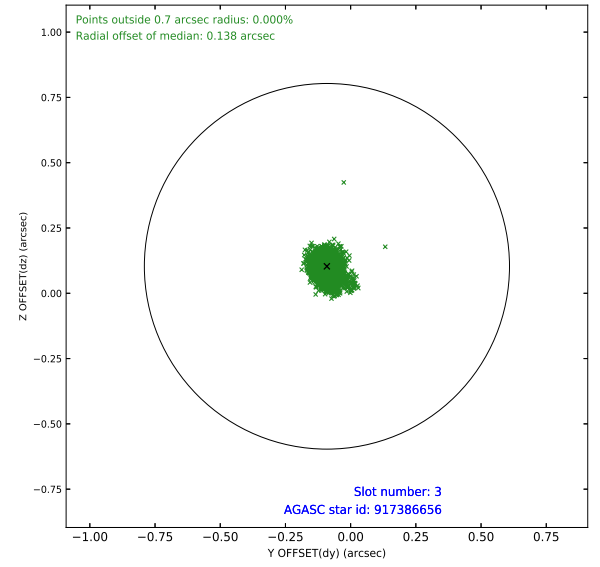
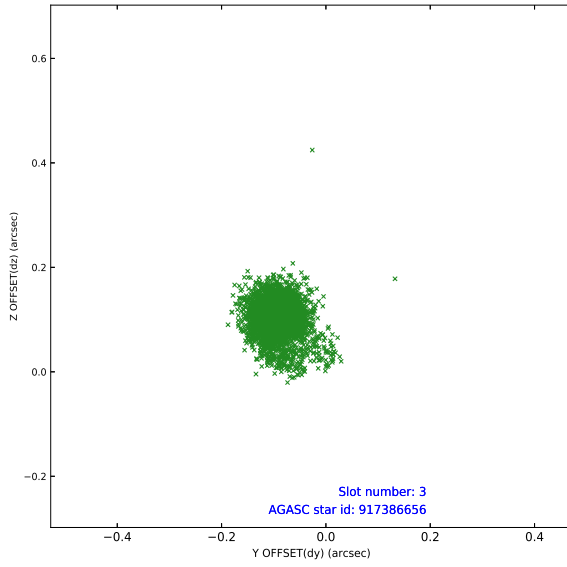


Slot Statistics

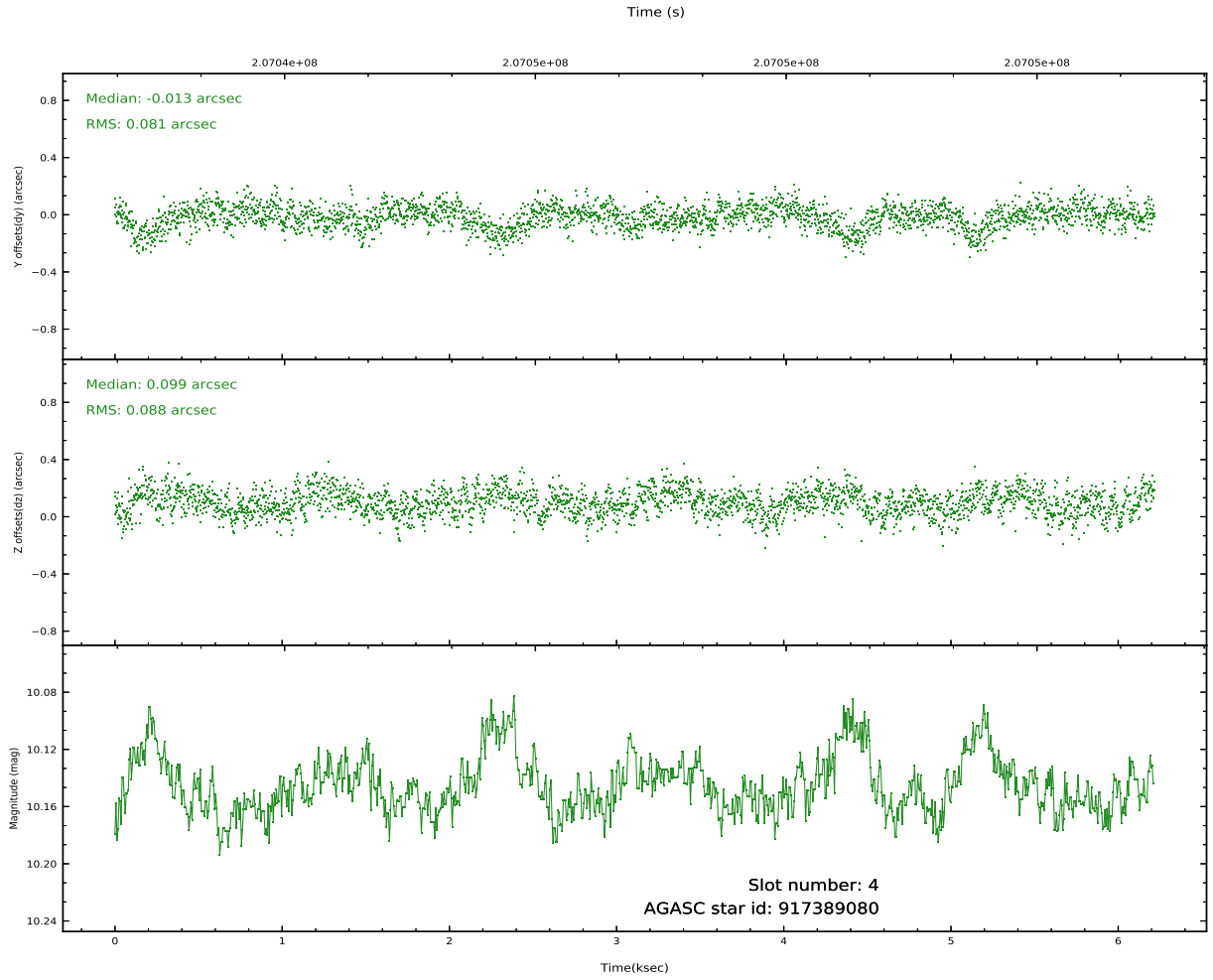
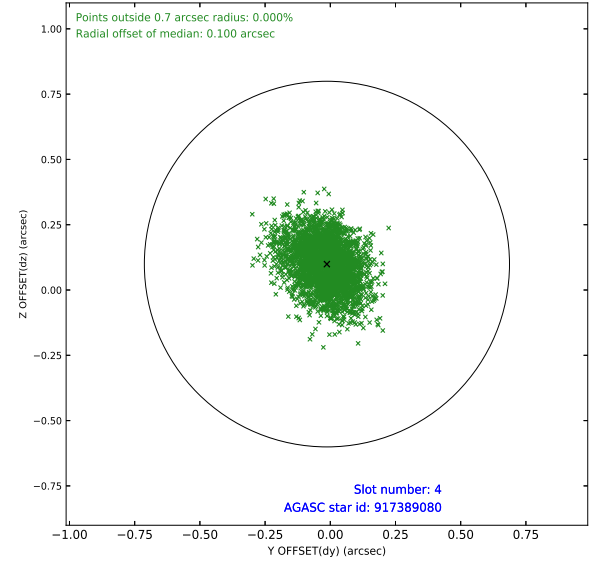
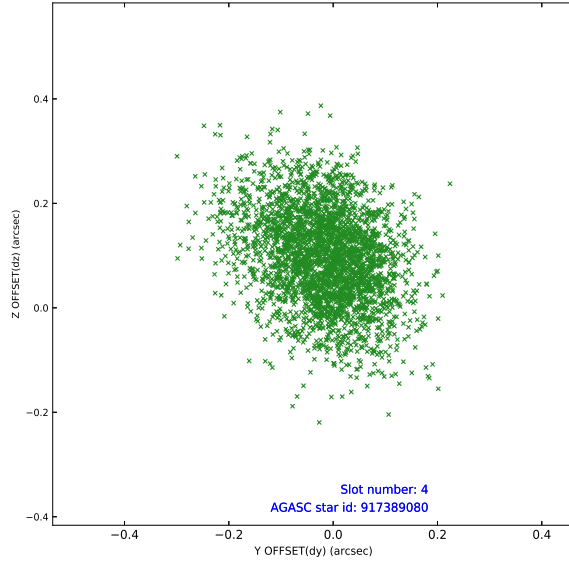
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-1	7.18	1517	1.000	0.037	-0.029	0.007	0.011	0.000000	0.000000	937.52	-1726
1	FID		ACIS-S-5	7.23	1517	1.000	-0.120	0.013	0.006	0.011	0.000000	0.000000	-1811.08	170
2	FID		ACIS-S-6	7.35	1517	1.000	0.061	0.027	0.007	0.013	0.000000	0.000000	402.10	815
3	GUIDE	used	917386656	7.24	3034	1.000	-0.091	0.103	0.048	0.086	15.342124	-33.359890	1181.36	-1003
4	GUIDE	used	917389080	10.15	3032	1.000	-0.013	0.099	0.125	0.211	15.722484	-33.662555	-46.67	-1994
5	GUIDE	used	917389288	9.57	3027	1.000	-0.077	0.158	0.114	0.183	15.394706	-33.185862	1782.30	-1241
6	GUIDE	used	917650528	8.73	3032	1.000	0.062	-0.319	0.070	0.115	14.274554	-33.869842	-247.25	2397
7	GUIDE	used	917651048	9.65	3026	1.000	0.126	-0.033	0.102	0.168	14.655628	-34.424089	-2364.47	1509

2.4 Star Slots

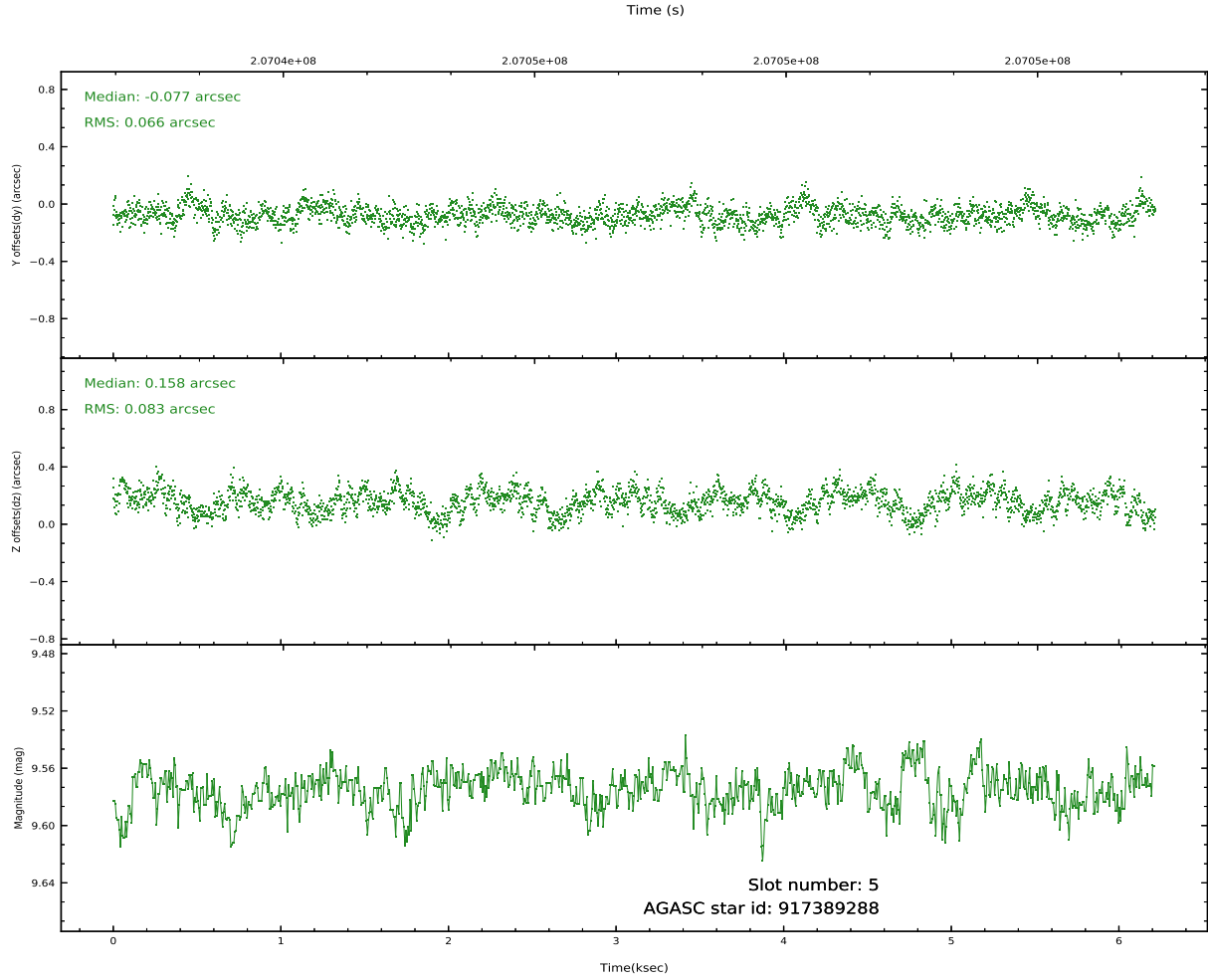
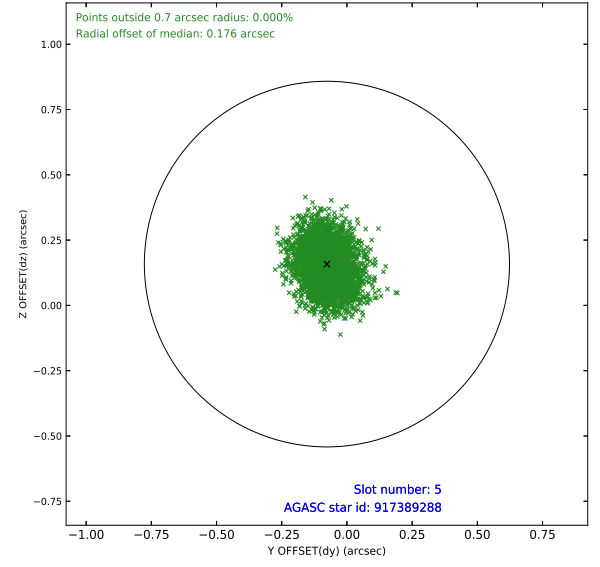
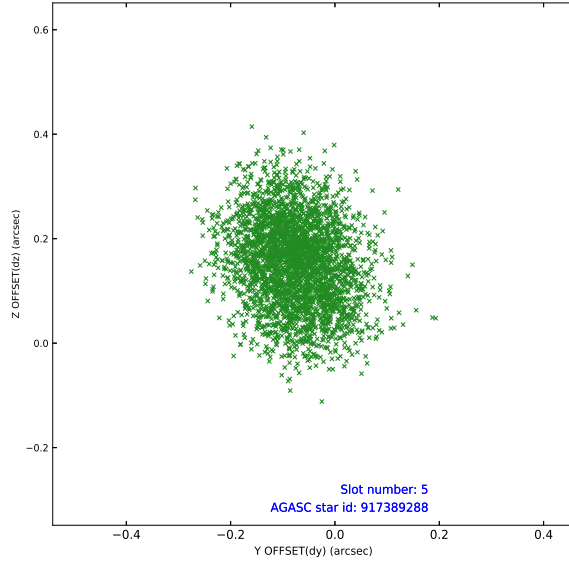
2.4.1 Slot 3



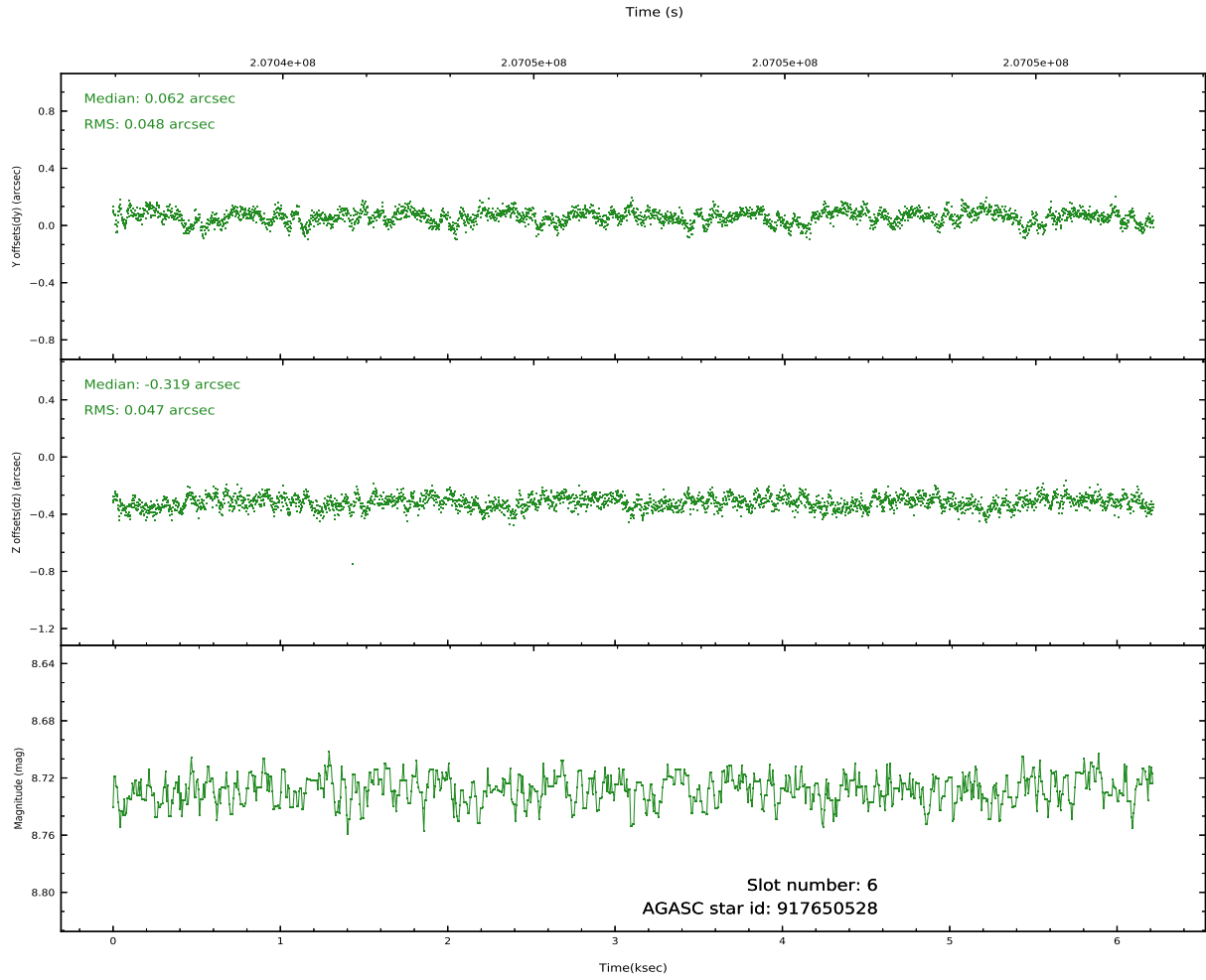
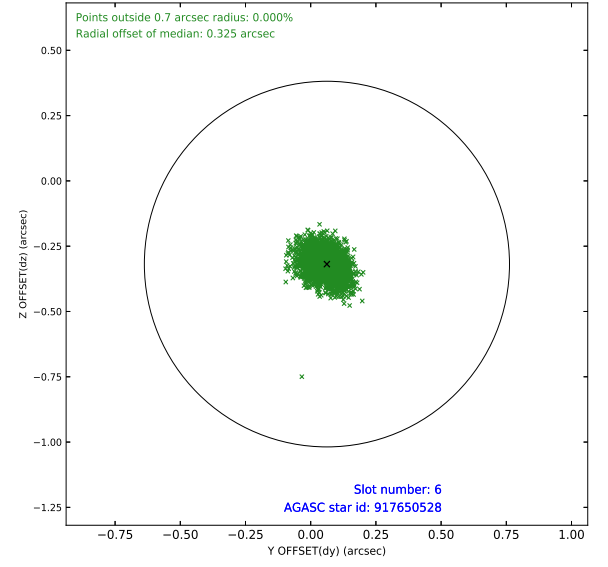
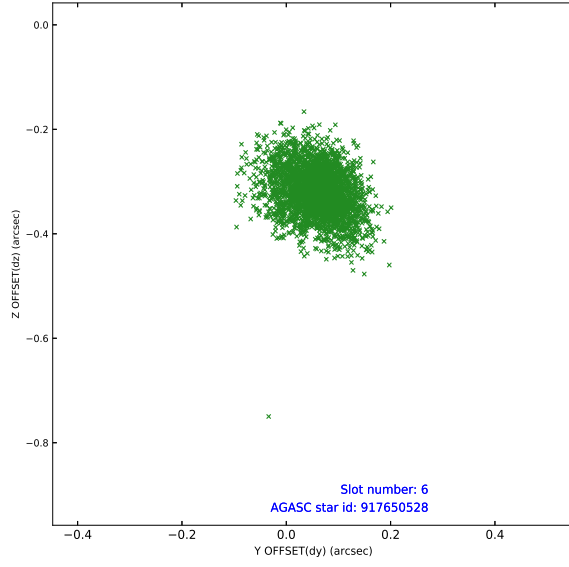
2.4.2 Slot 4



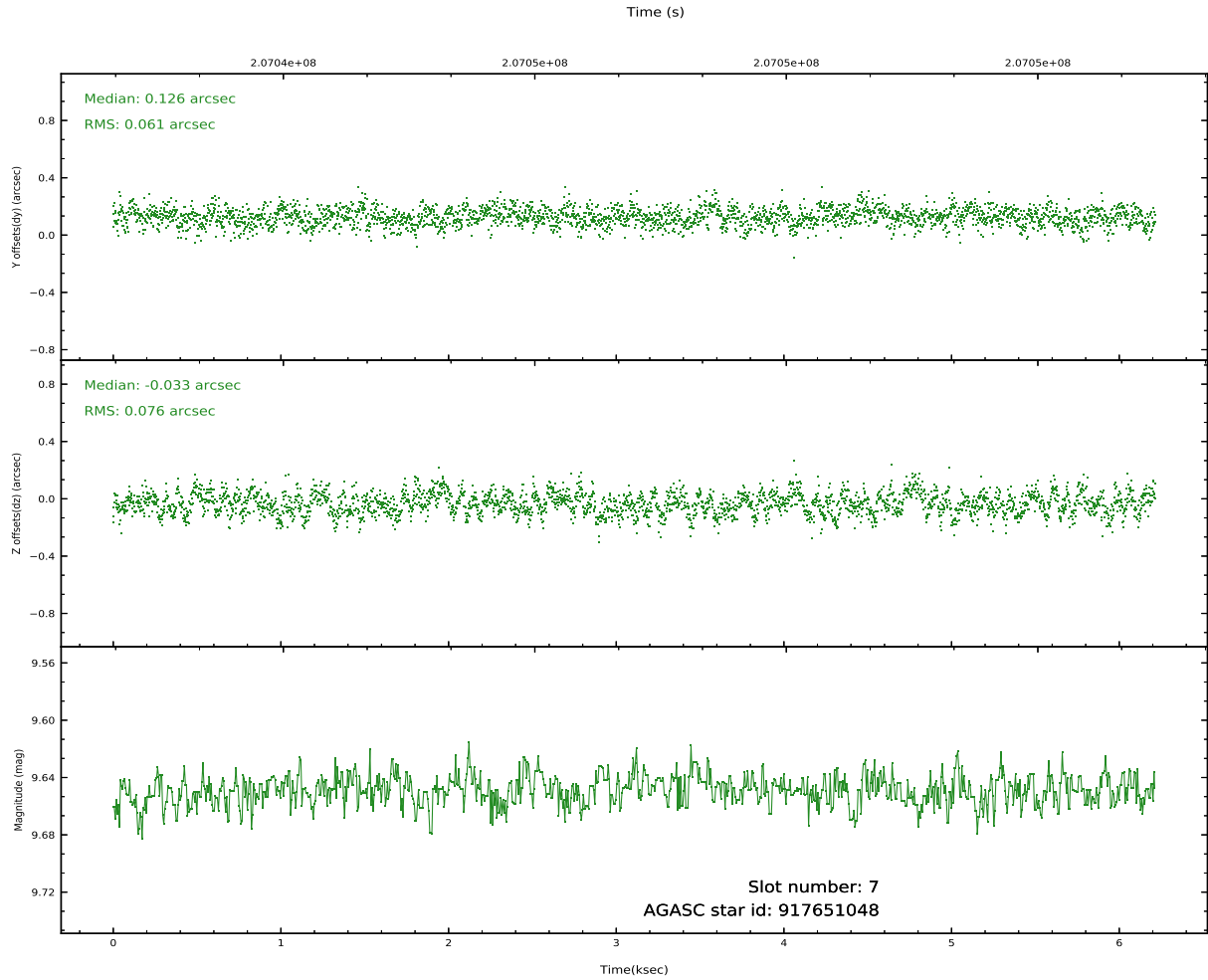
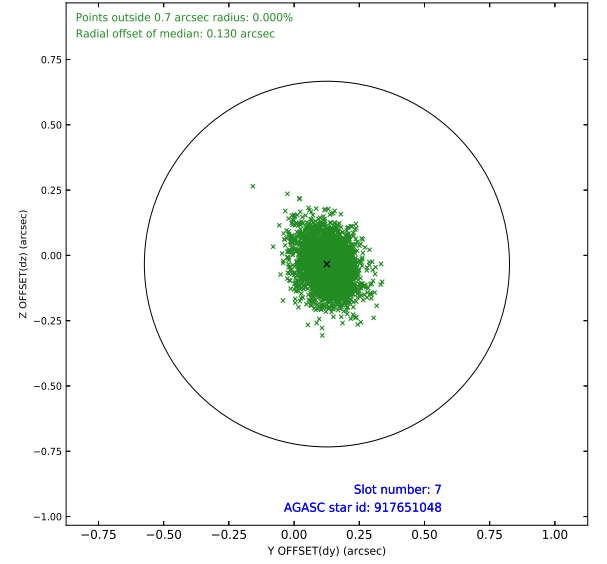
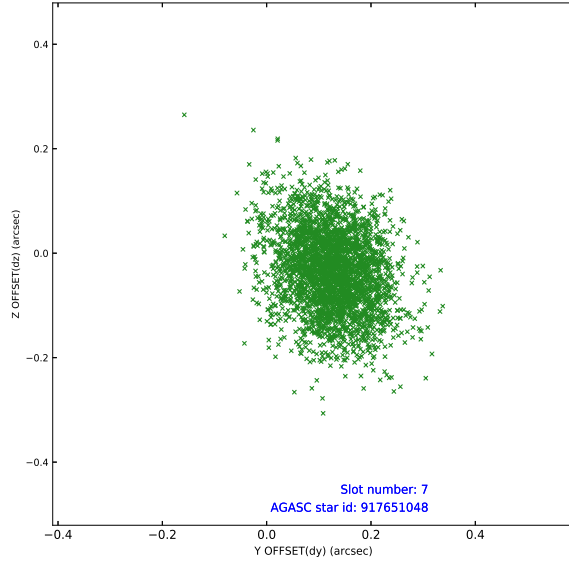
2.4.3 Slot 5



2.4.4 Slot 6

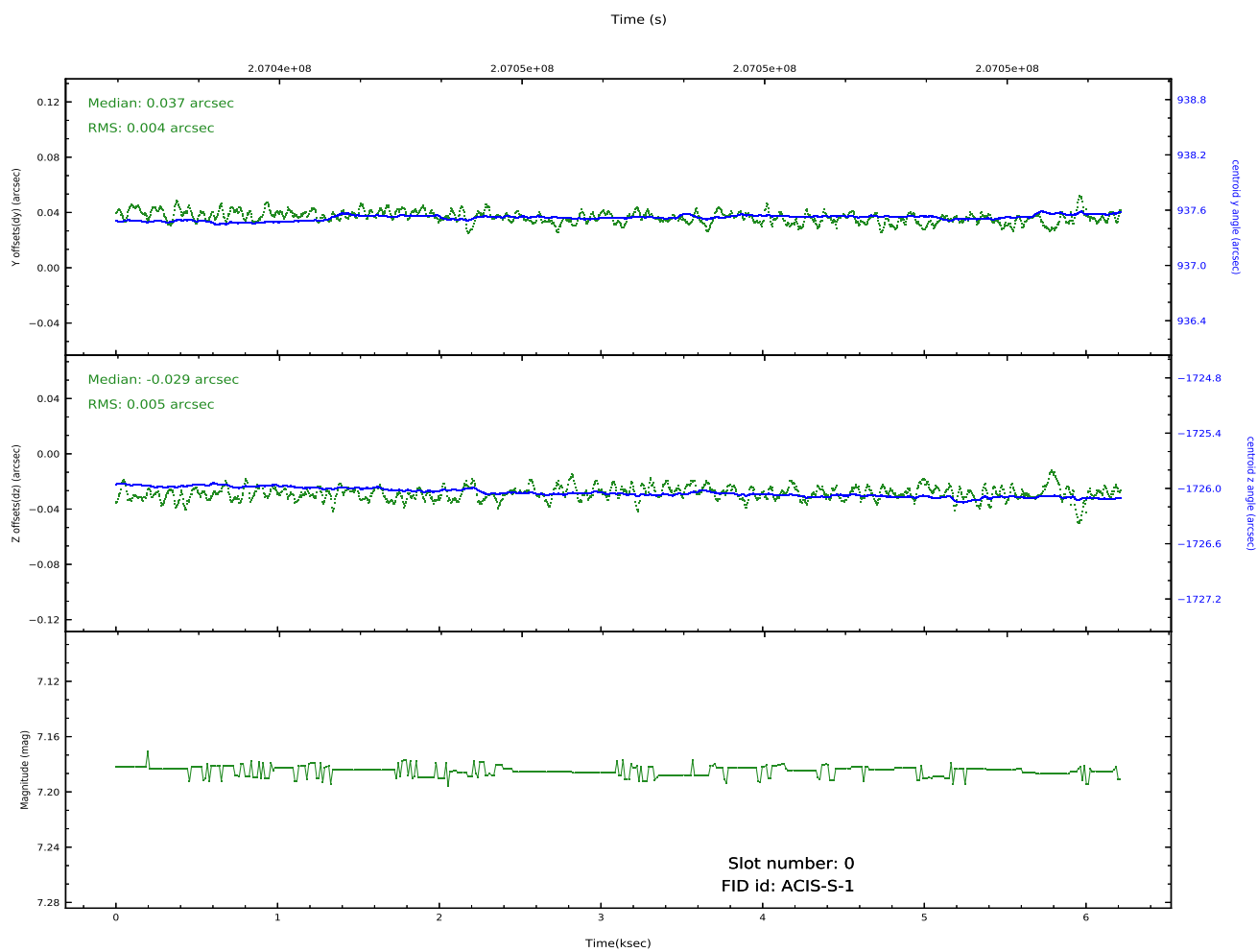
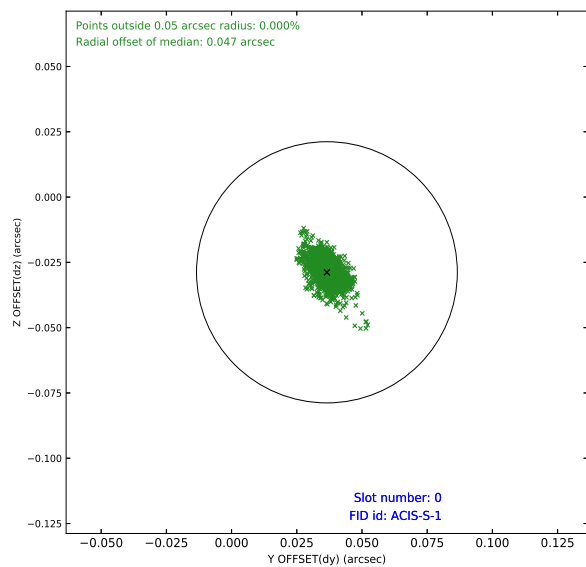
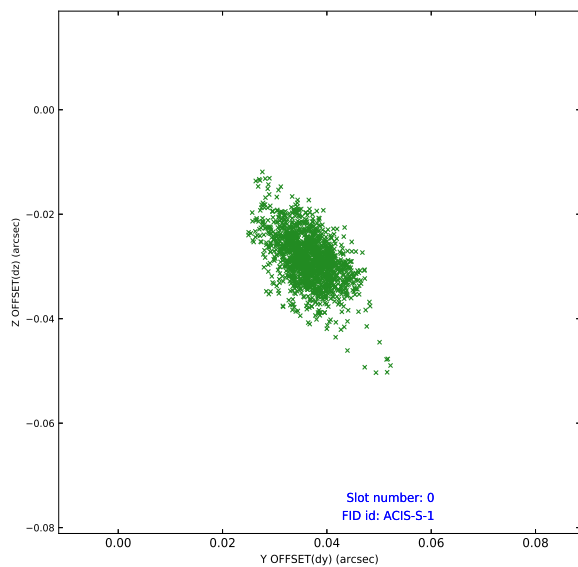


2.4.5 Slot 7

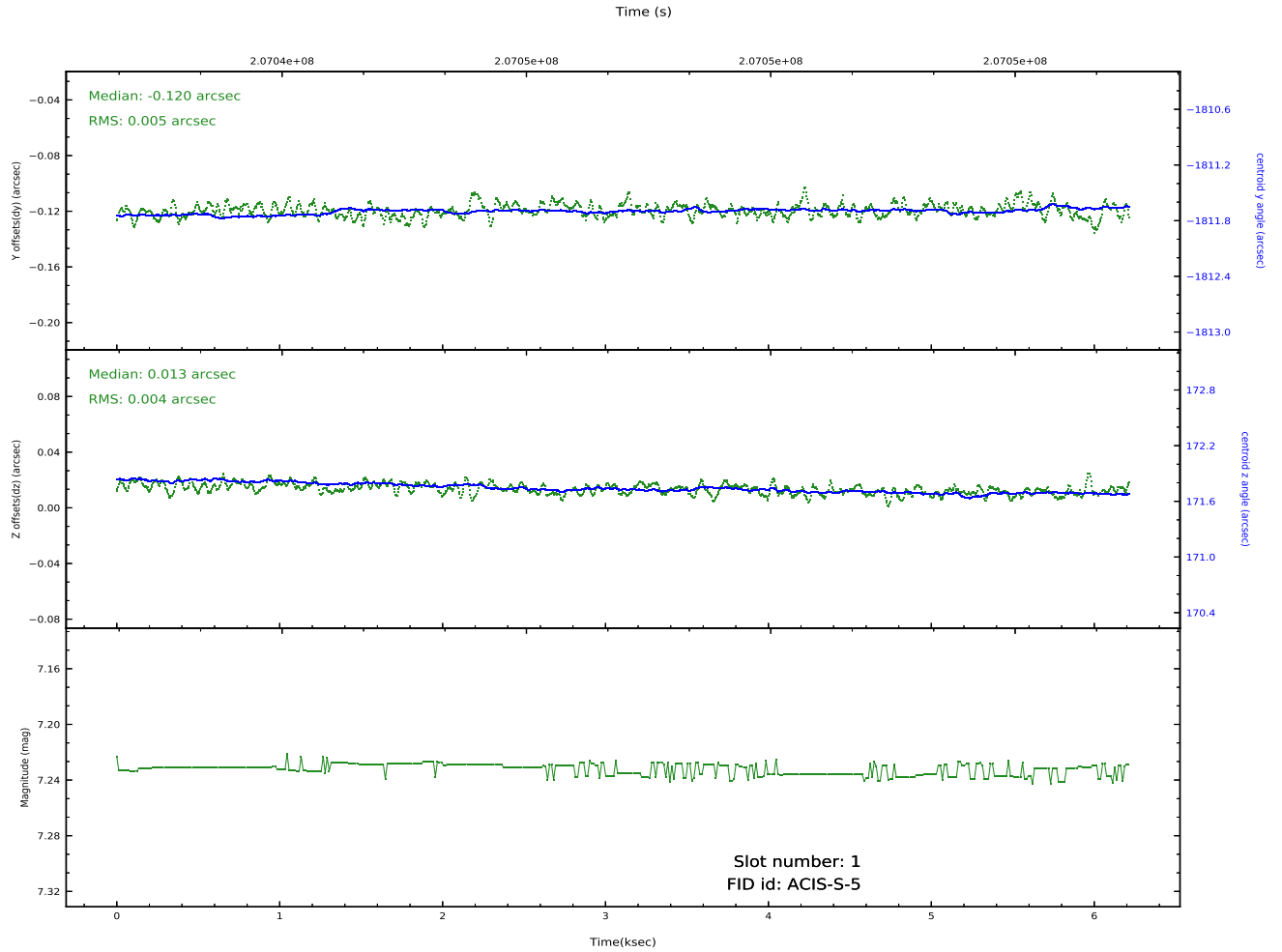
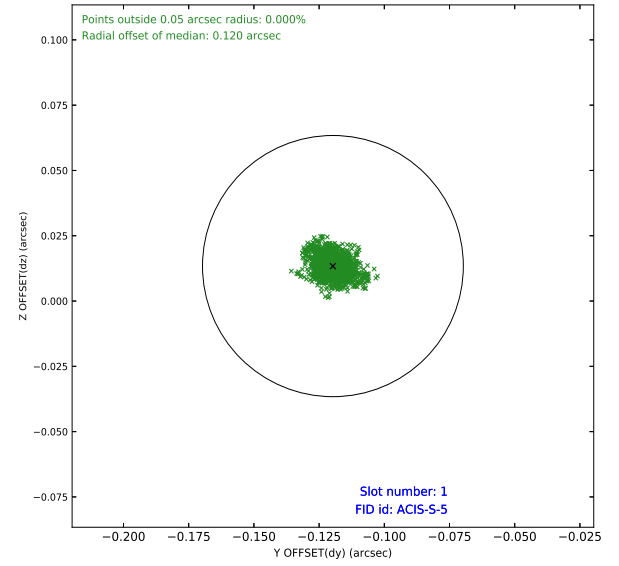
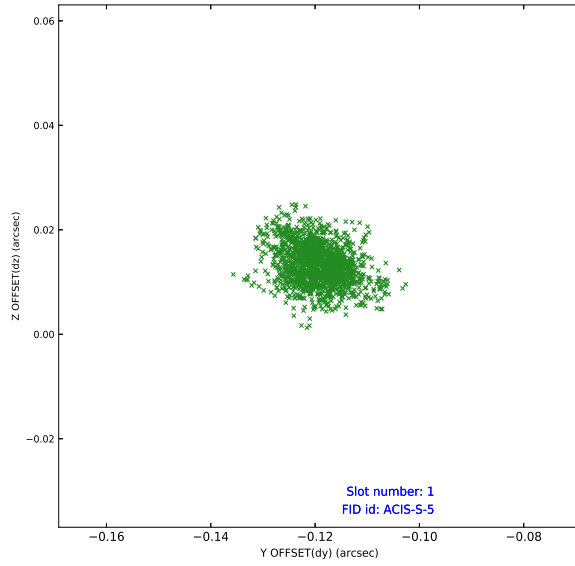


2.5 FID Slots

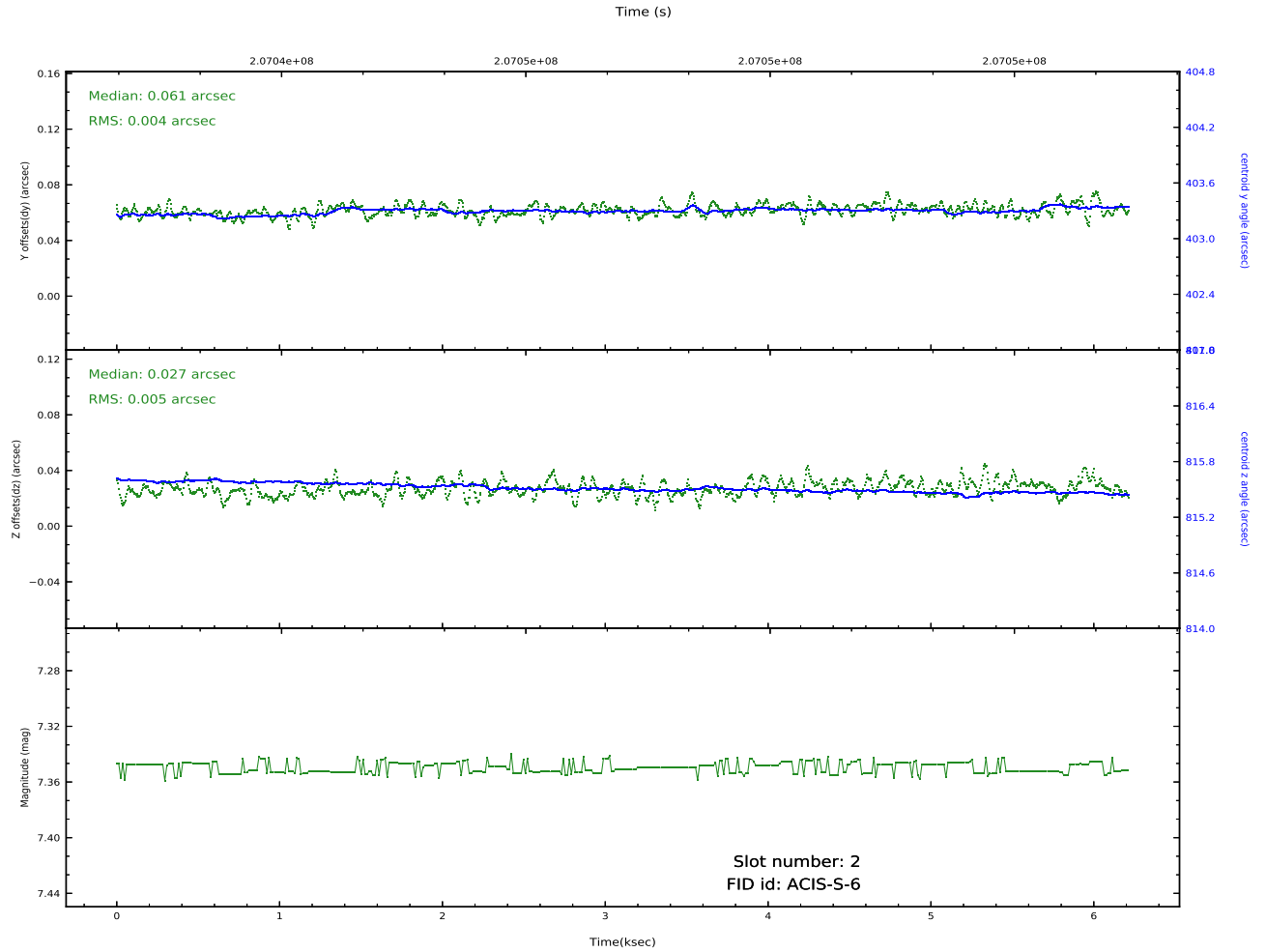
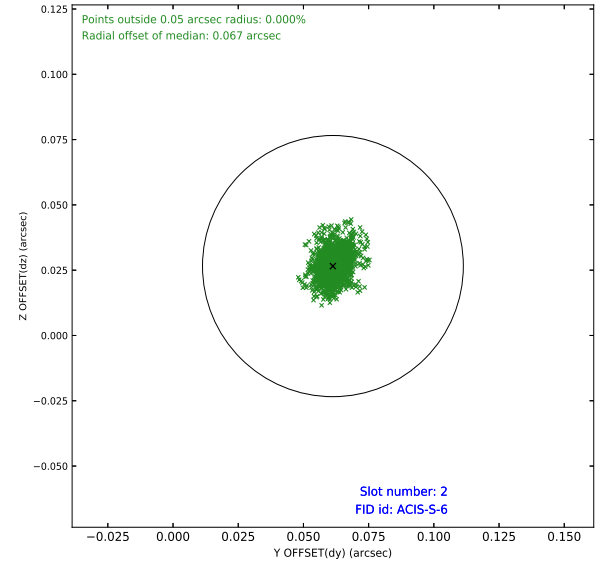
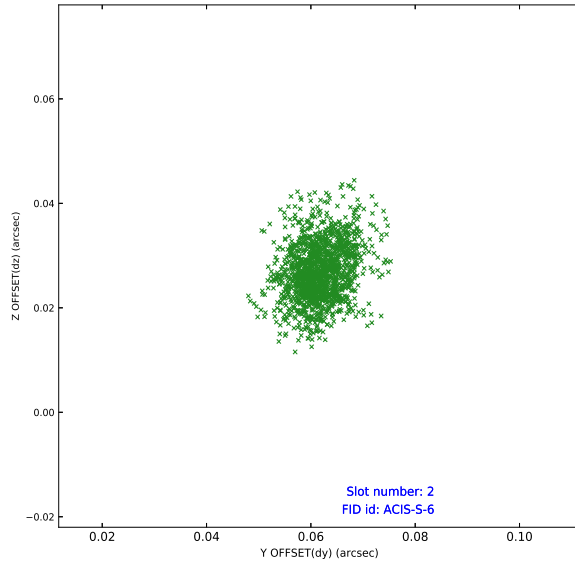
2.5.1 Slot 0



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)	2020.10.01
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.907

A.2 Comments

Joint proposal with NOAO.

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: (15.27579, -33.81188), (15.28230, -33.81119), (15.26048, -33.67291), (15.25399, -33.67360).