

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 5562 - L2 Version 4
Chandra X-Ray Center

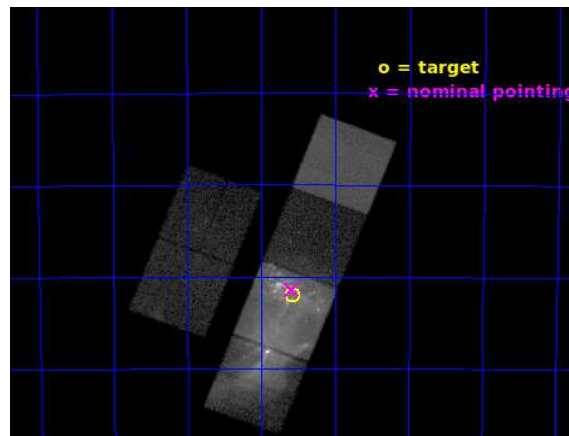
L2 Processing Date : Oct 5 2020

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1 Front

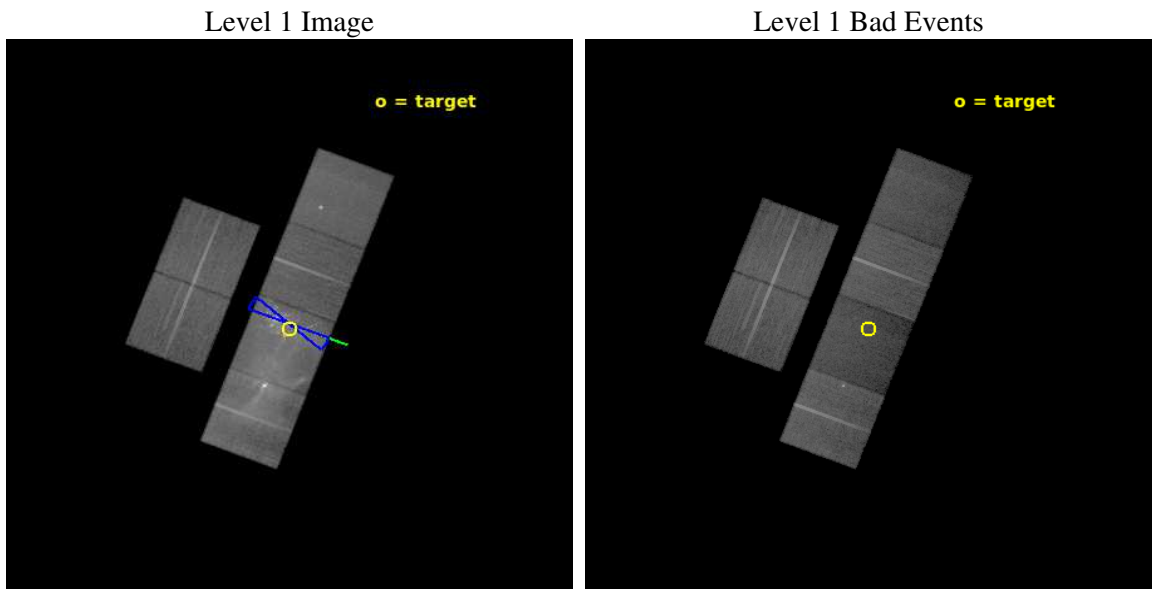
seq_num	500551	Sequence number
obs_id	5562	Observation id
title	A Chandra Study of the Interaction between the Plasma Nebula RCW89 and the pulsar jet of PSR B1509-58	Proposal title
observer	Dr Yoichi Yatsu	Principal investigator
object	RCW89	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	228.3925	Observer's specified target RA [deg]
dec_targ	-59.032778	Observer's specified target Dec [deg]
ra_nom	228.39667826946	Nominal RA [deg]
dec_nom	-59.023796646959	Nominal Dec [deg]
roll_nom	111.06850605302	Nominal Roll [deg]
revision	4	Processing version of data
ontime	29954.416050702	Sum of GTIs [s]
livetime	29575.115198284	Livetime [s]
ontime2	29947.9751302	Sum of GTIs [s]
ontime3	29951.051960438	Sum of GTIs [s]
ontime5	29954.375010699	Sum of GTIs [s]
ontime6	29951.093000412	Sum of GTIs [s]
ontime7	29954.416050702	Sum of GTIs [s]
ontime8	29954.251890719	Sum of GTIs [s]
l2events	597958	Number of level 2 events



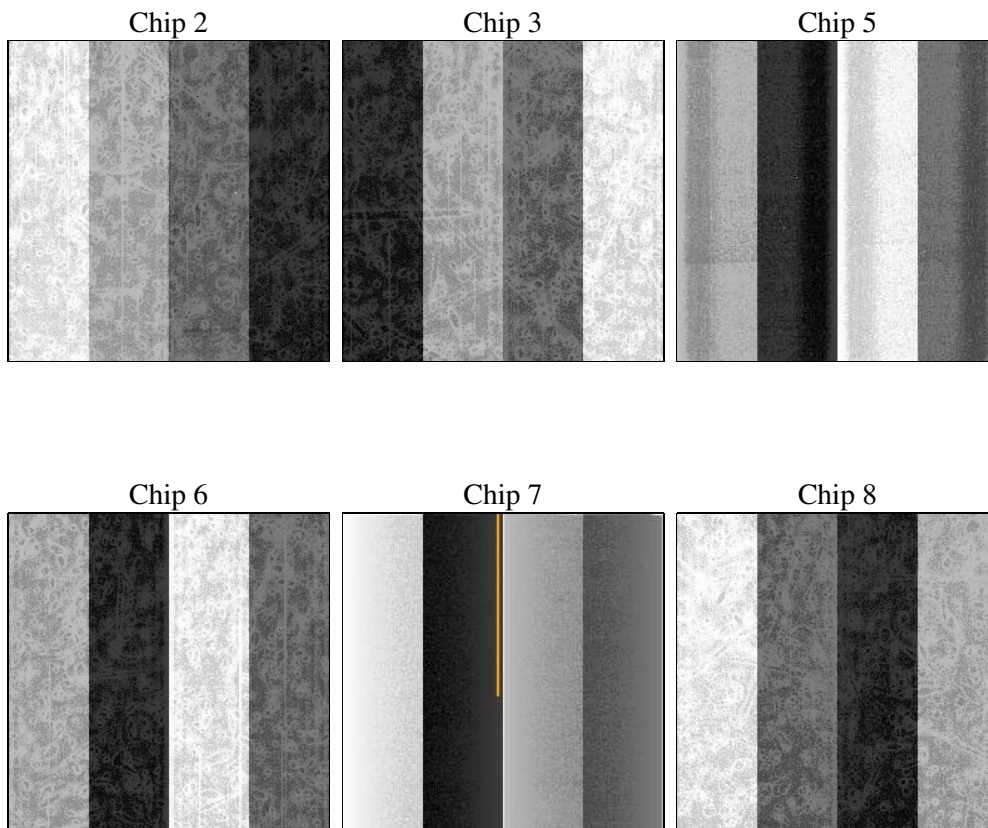
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	29954.416050702	Sum of GTIs [s]
caldbver	4.9.2	 	ontime2	29947.9751302	Sum of GTIs [s]
date	2020-10-05T19:59:36	Date and time of file creation	ontime3	29951.051960438	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	29954.375010699	Sum of GTIs [s]
			ontime6	29951.093000412	Sum of GTIs [s]
			ontime7	29954.416050702	Sum of GTIs [s]
			ontime8	29954.251890719	Sum of GTIs [s]
			l1events	1512689	Number of level 1 events

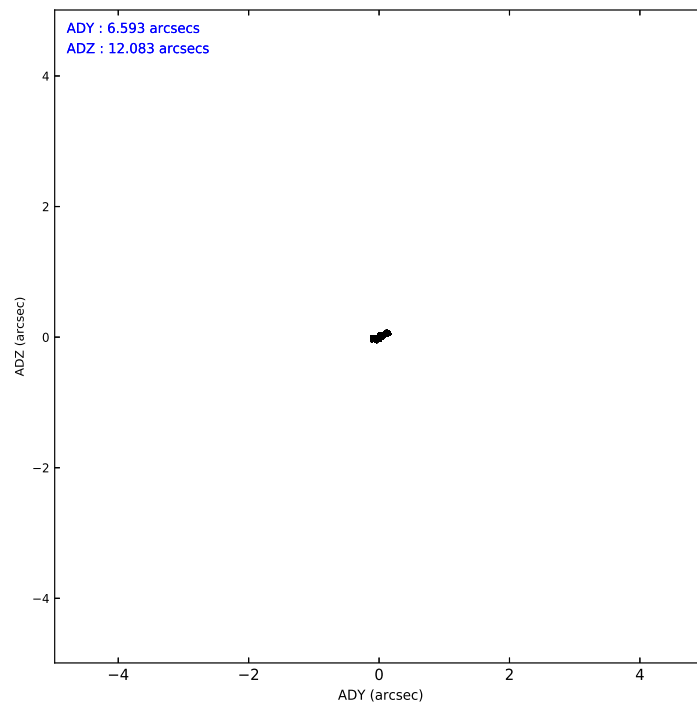
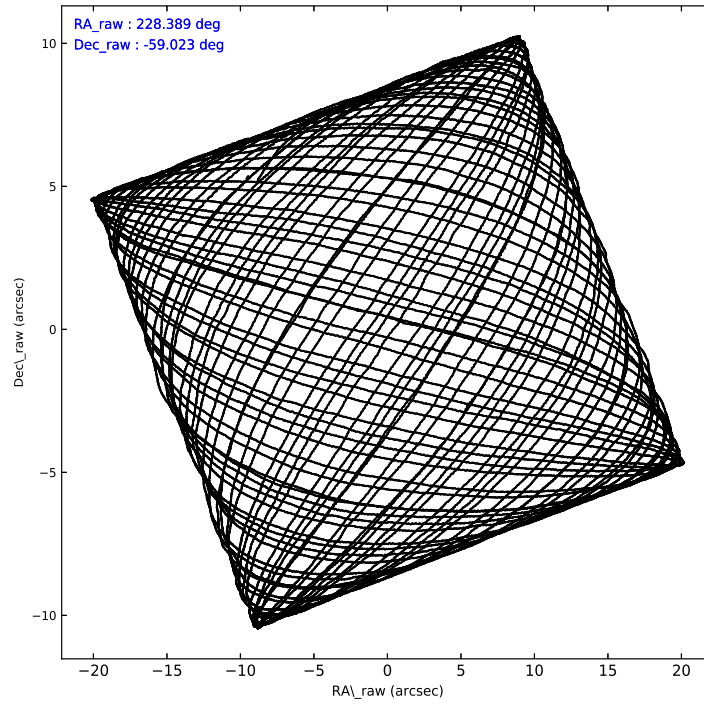
2.1.4 Events

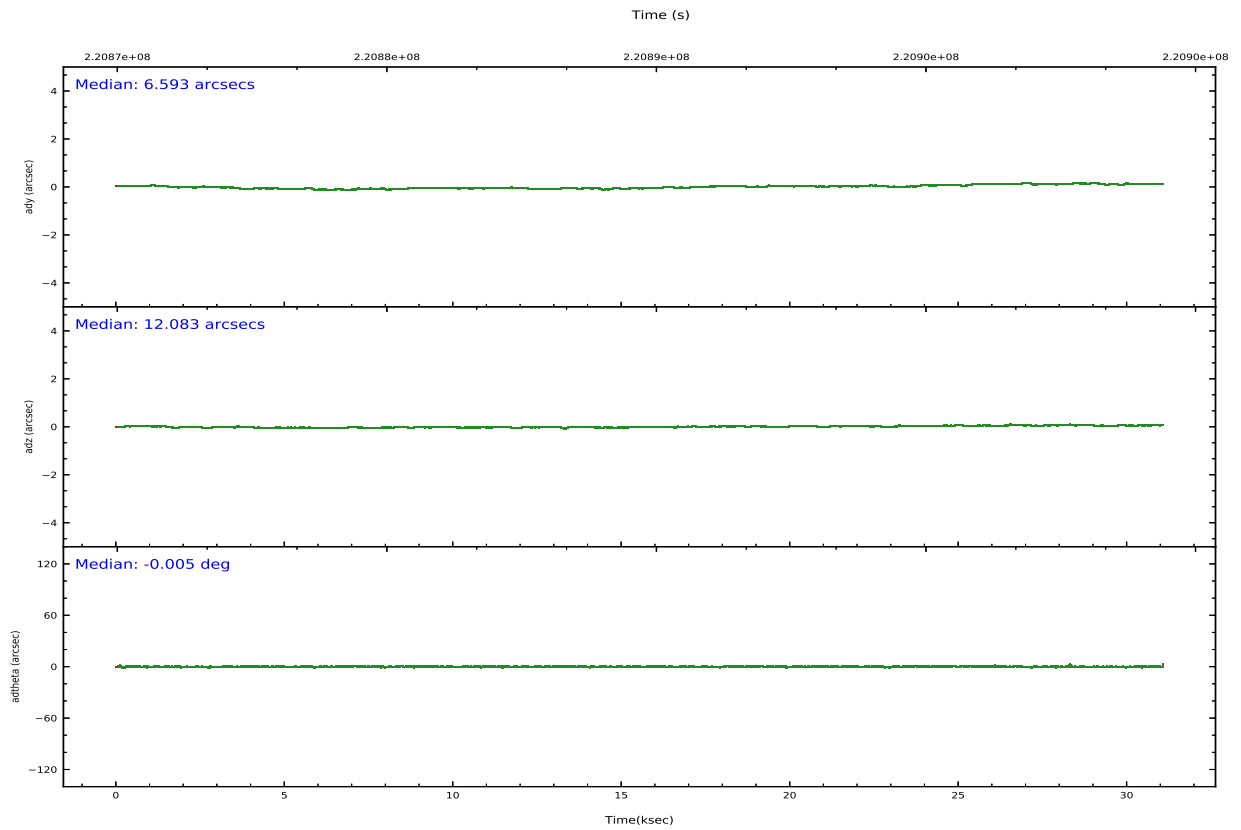
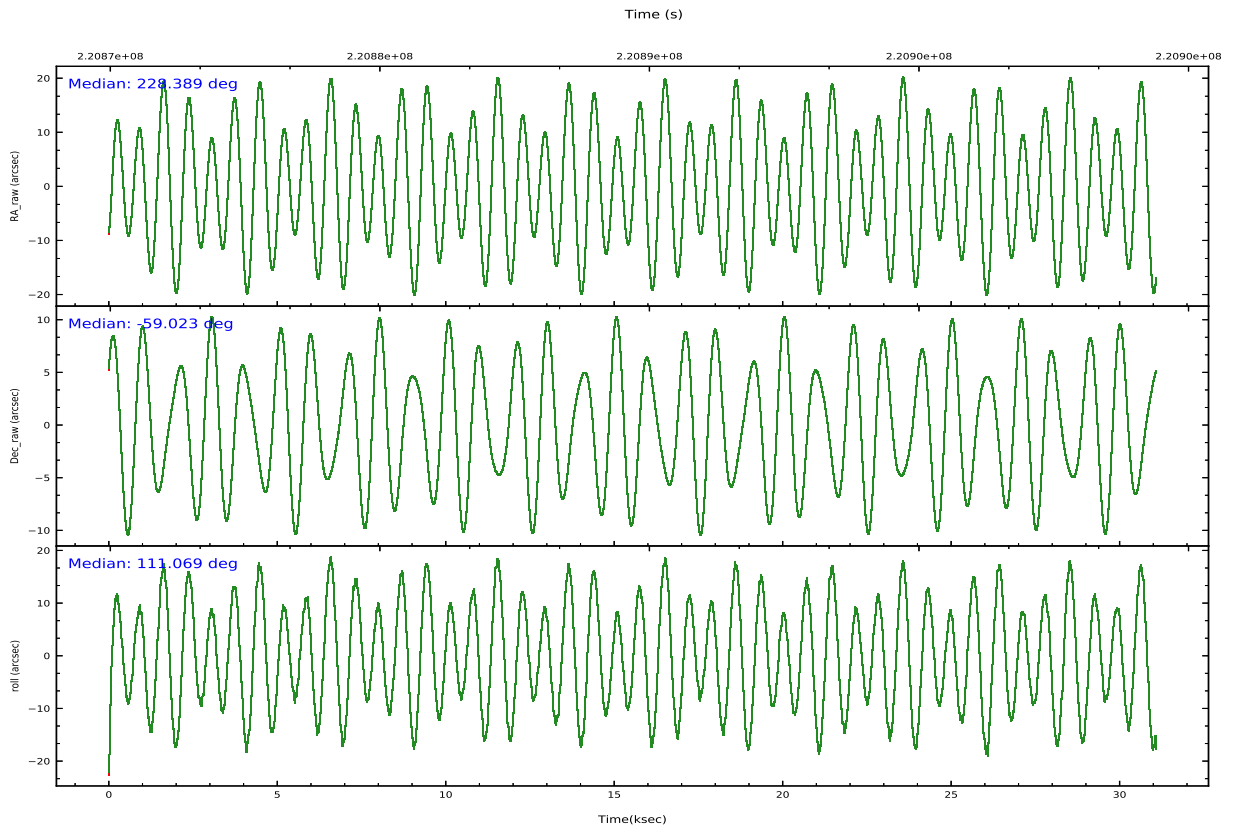
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	193737	180877	211101	186190	386575	354209	grade 0 events	9278	11734	11197	12823	66681	117264
rejected events	172855	157794	103205	160526	88040	168243		4%	6%	5%	6%	17%	33%
rejected %	89%	87%	48%	86%	22%	47%	grade 1 events	101	105	178	103	235	1151
								0%	0%	0%	0%	0%	0%
							grade 2 events	4453	4109	30466	4697	74282	28047
								2%	2%	14%	2%	19%	7%
							grade 3 events	2003	2071	4459	2275	33173	10936
								1%	1%	2%	1%	8%	3%
							grade 4 events	2044	2069	4258	2132	32886	10431
								1%	1%	2%	1%	8%	2%
							grade 5 events	4961	5941	18232	5982	19570	9823
								2%	3%	8%	3%	5%	2%
							grade 6 events	3108	3110	57534	3746	91578	19333
								1%	1%	27%	2%	23%	5%
							grade 7 events	167789	151738	84777	154432	68170	157224
								86%	83%	40%	82%	17%	44%

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	228.430543	228.39667826946	Subarray requested	NONE	NONE
[deg] Pointing Dec	-59.040110	-59.023796646959	Alternating exposures requested	N	N
[deg] Pointing Roll	110.947496	111.06850605302	[s] Primary exposure time	0.000000	3.2
[deg] Roll angle	300.000000	300.000000			
[deg] Roll tolerance	10.000000	10.000000			
Roll constraint allows 180D rotation	Y	Y			
[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)	220873039.184000	220871631.29711			
Observation start date	2004-12-31T09:36:15	2004-12-31T09:13:51			
[s] Observation end time (MET)	220903039.184000	220903311.48603			
Observation end date	2004-12-31T17:56:15	2004-12-31T18:01:51			
Read mode	TIMED	TIMED			

2.3 Aspect





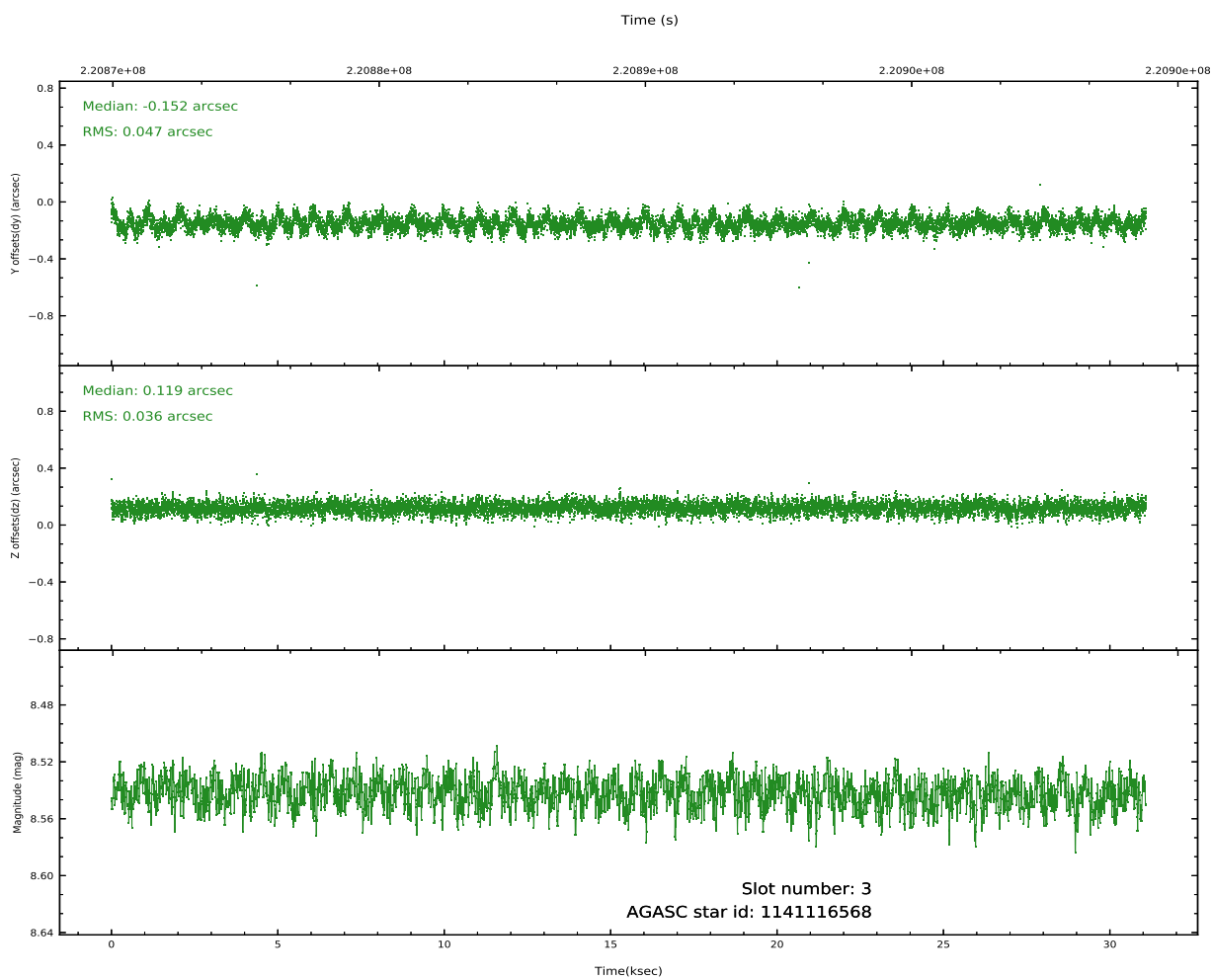
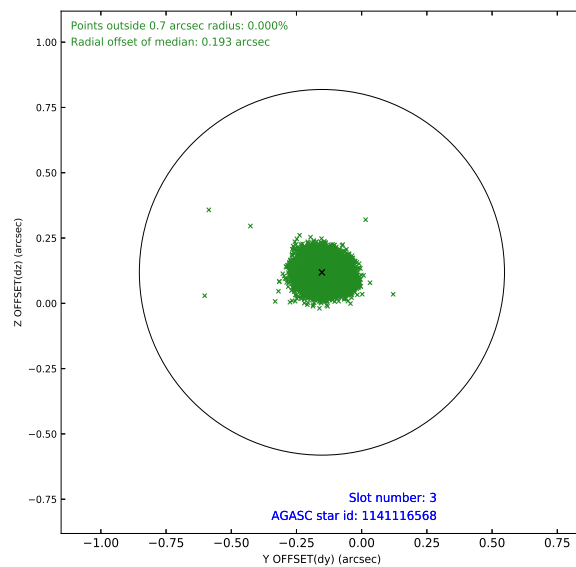
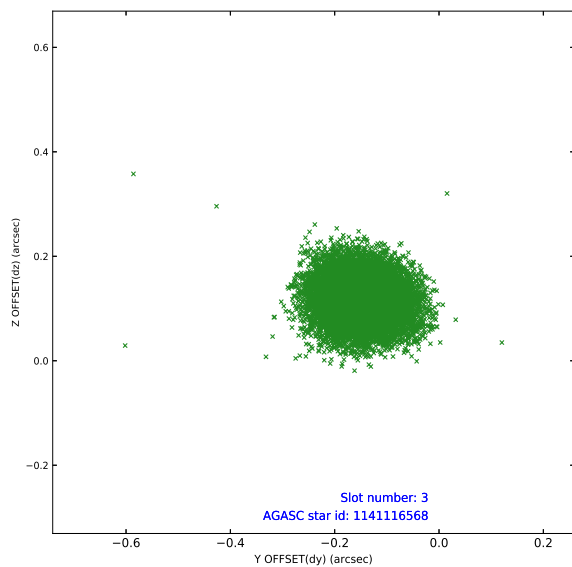
Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.10	7582	1.000	-0.062	-0.068	0.008	0.013	0.000000	0.000000	-759.38	-1733
1	FID		ACIS-S-4	7.20	7582	1.000	0.120	0.048	0.007	0.013	0.000000	0.000000	2154.03	175
2	FID		ACIS-S-5	7.23	7581	1.000	-0.089	0.029	0.007	0.013	0.000000	0.000000	-1812.19	168
3	GUIDE	used	1141116568	8.54	15162	1.000	-0.152	0.119	0.063	0.102	228.578452	-58.520066	1648.76	-928
4	GUIDE	used	1141119896	8.38	15164	1.000	-0.010	0.047	0.057	0.092	229.637327	-59.405643	-2037.82	-1587
5	GUIDE	used	1141120488	8.76	15155	1.000	0.023	-0.043	0.066	0.109	228.236450	-59.504731	-1435.92	929
6	GUIDE	used	1141114296	9.20	15153	1.000	0.038	0.026	0.075	0.122	227.097332	-58.697525	2020.02	1897
7	GUIDE	used	1141118720	9.46	15147	1.000	0.092	-0.151	0.101	0.162	227.772709	-59.614232	-1507.32	1860

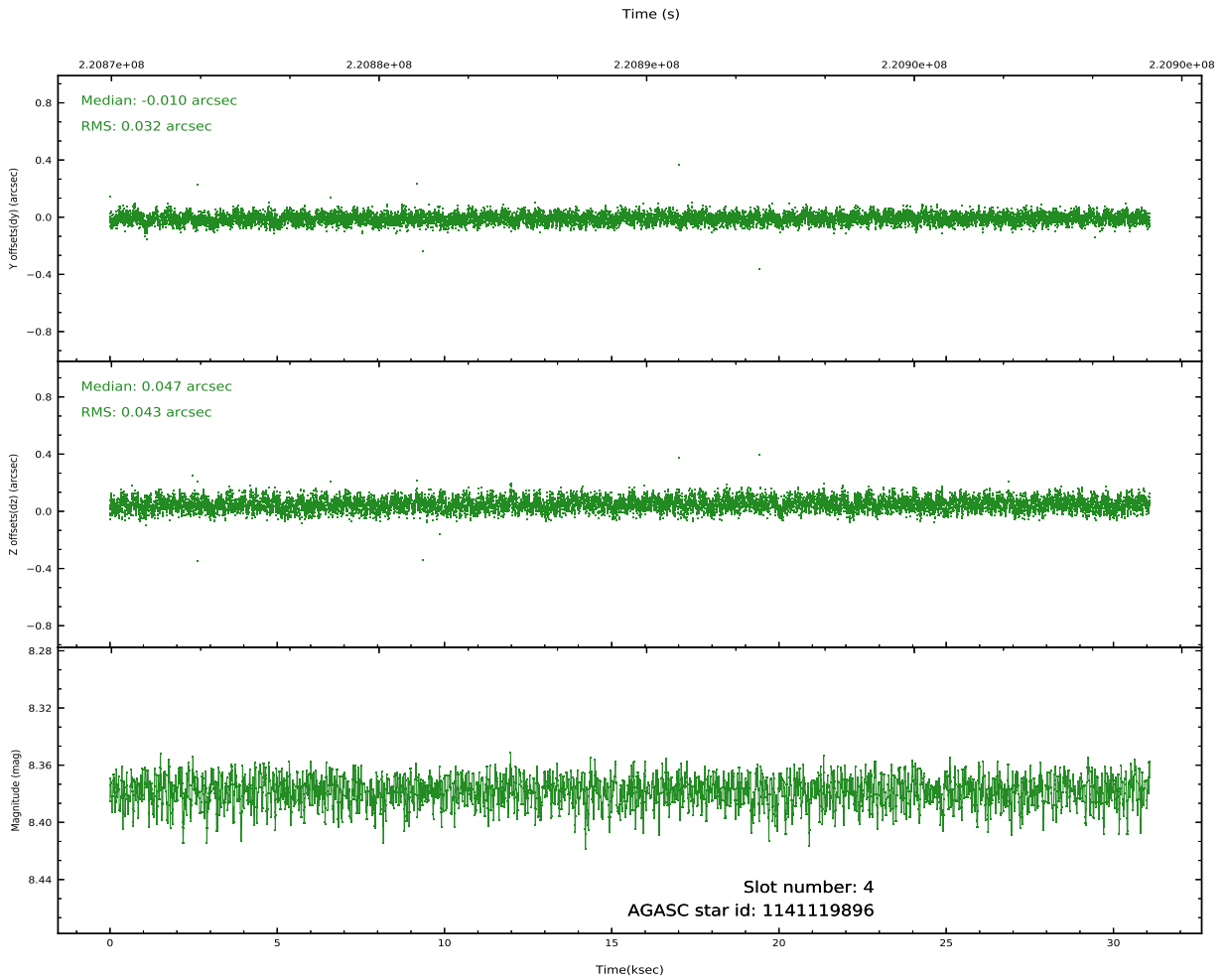
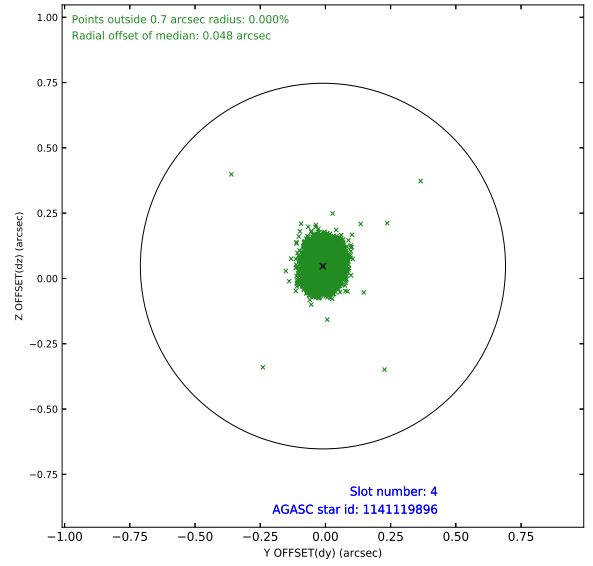
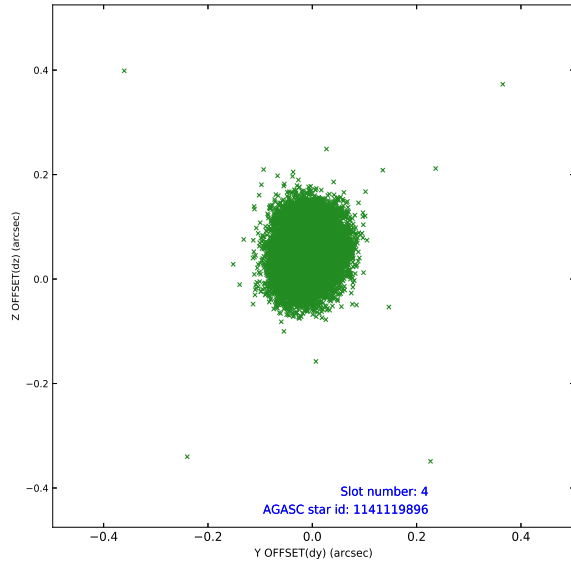
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2.4 Star Slots

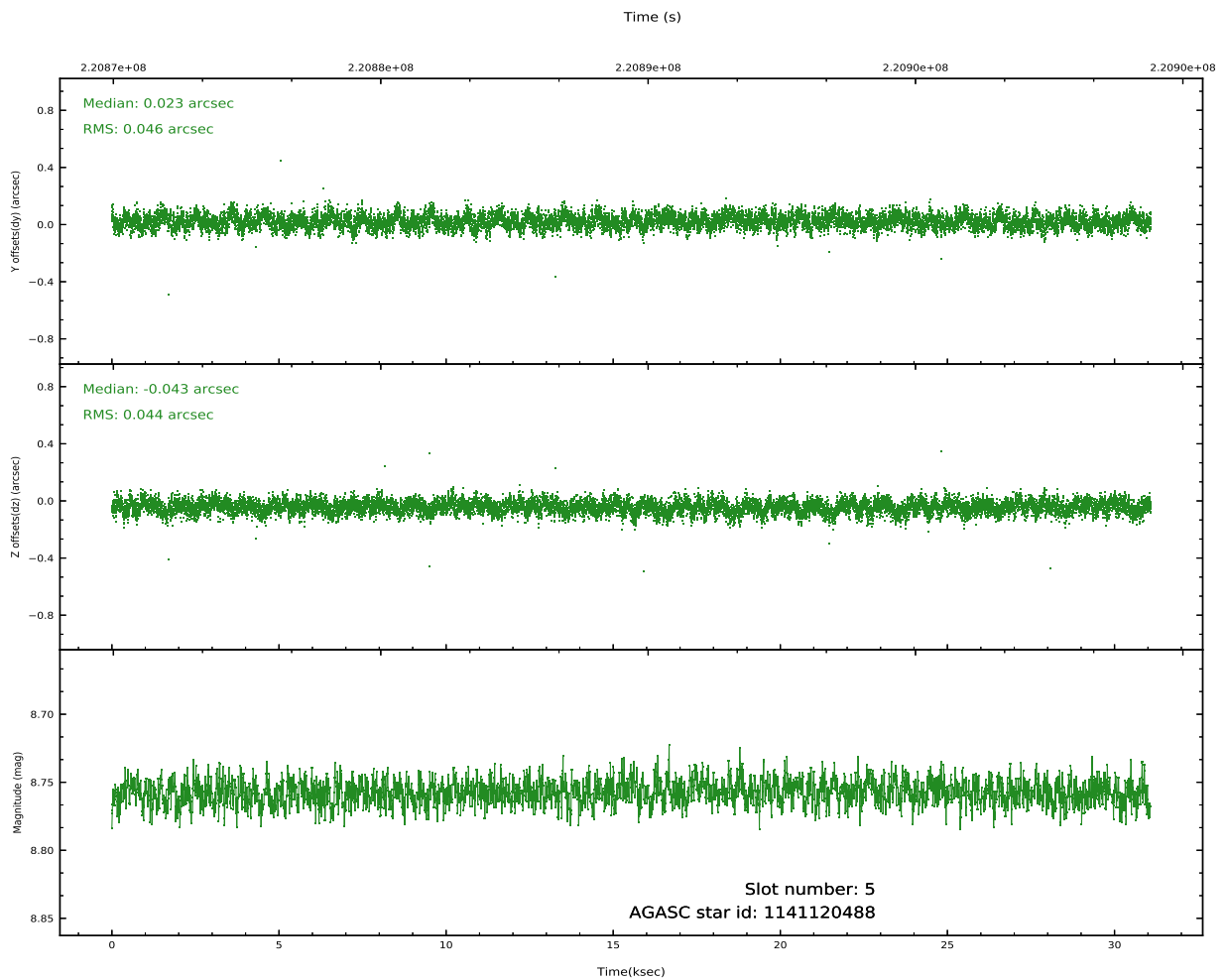
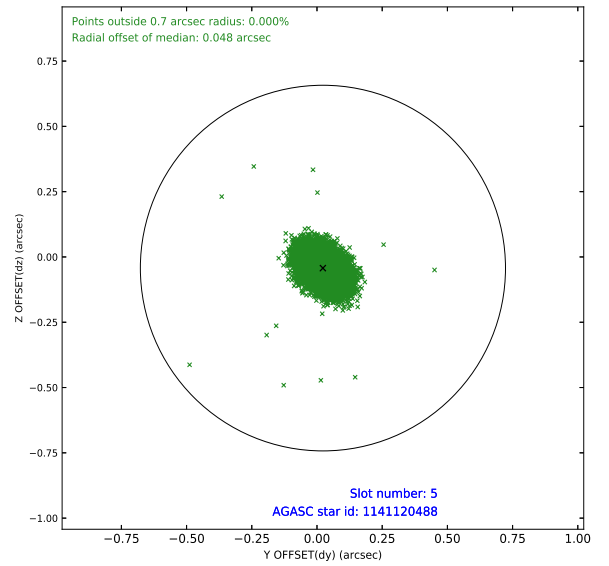
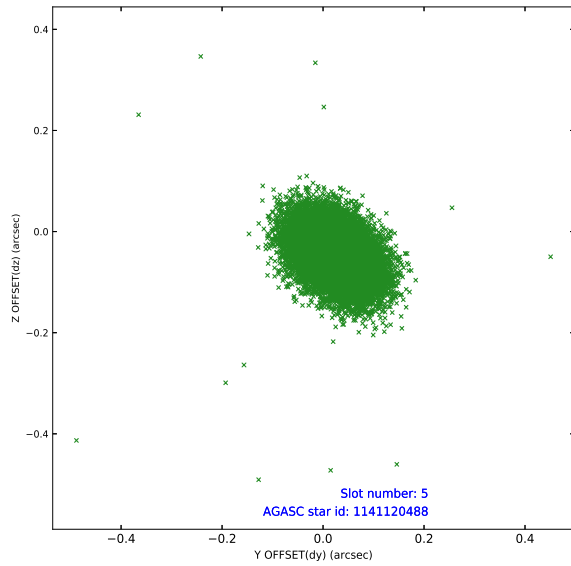
2.4.1 Slot 3



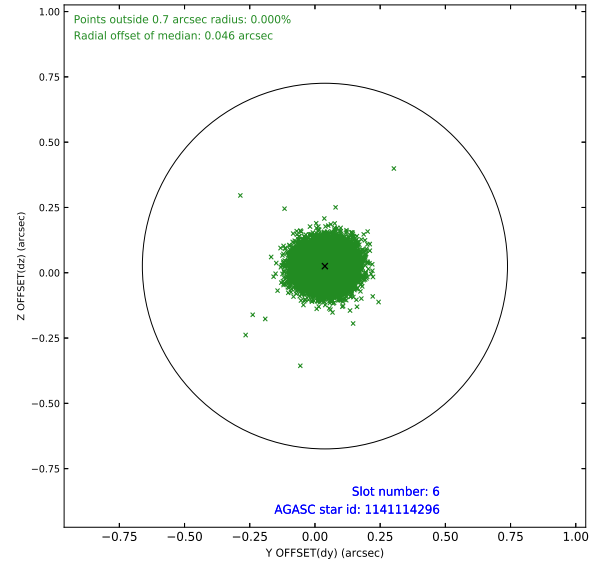
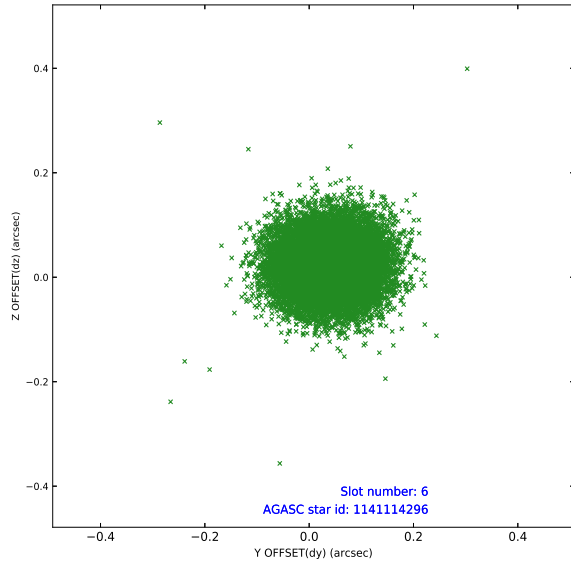
2.4.2 Slot 4



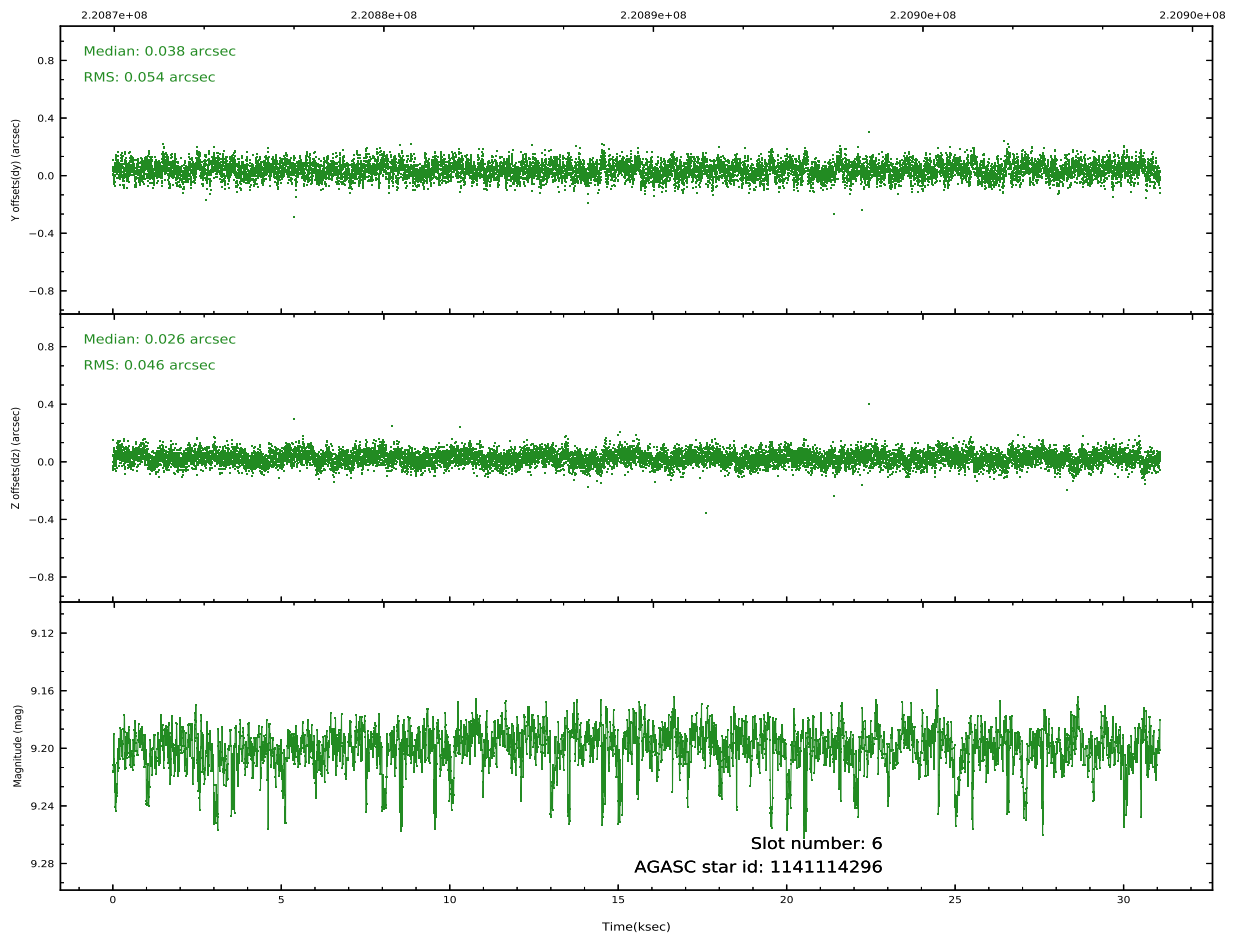
2.4.3 Slot 5



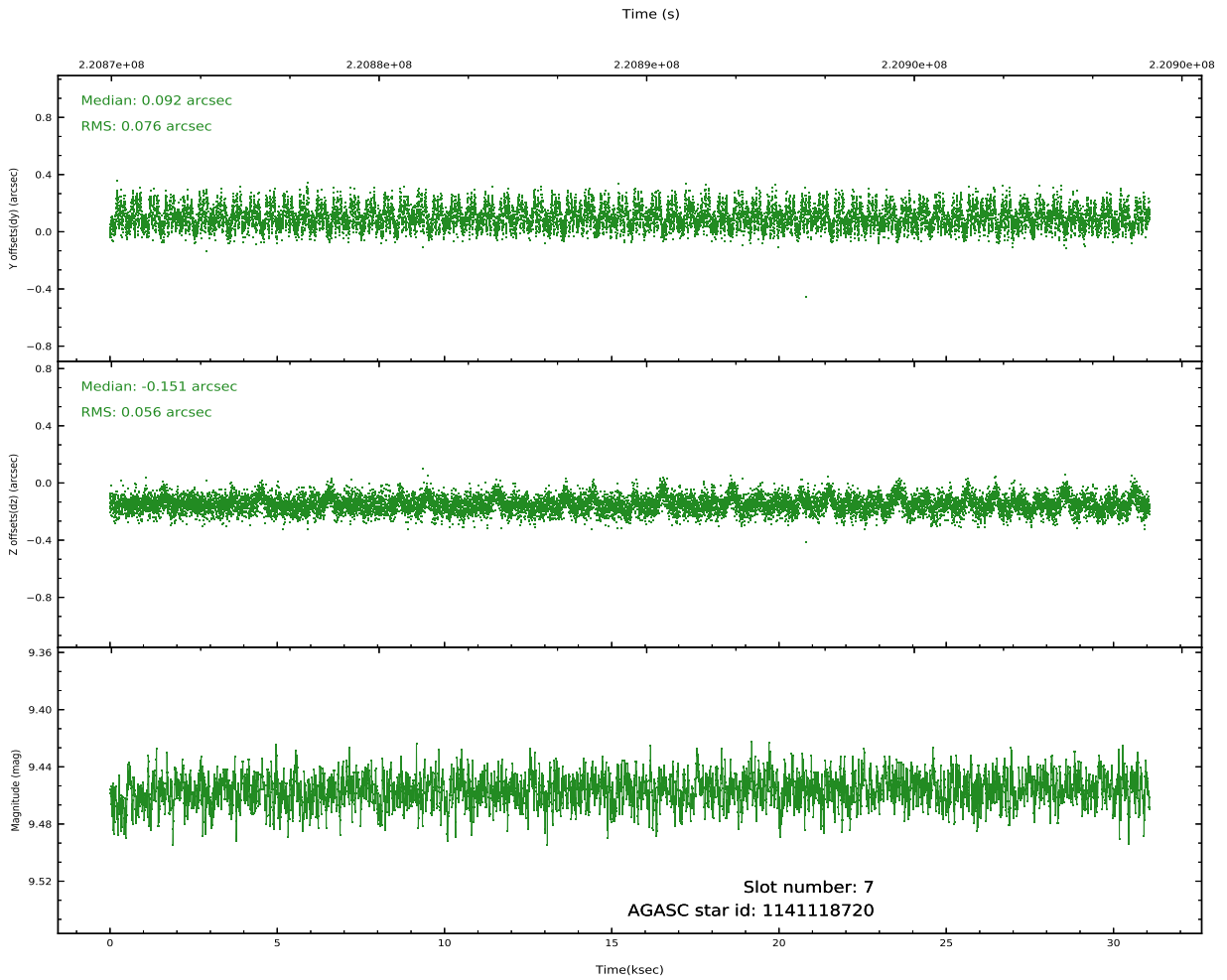
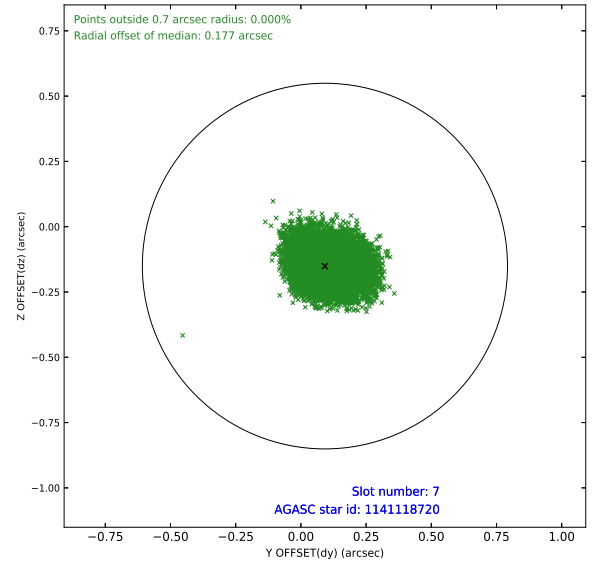
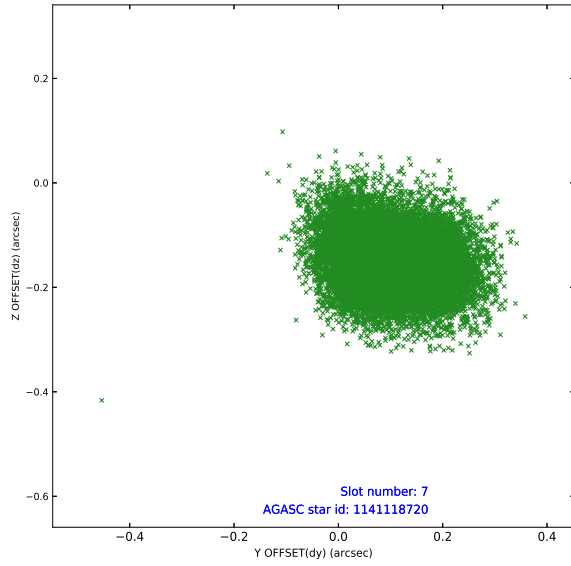
2.4.4 Slot 6



Time (s)

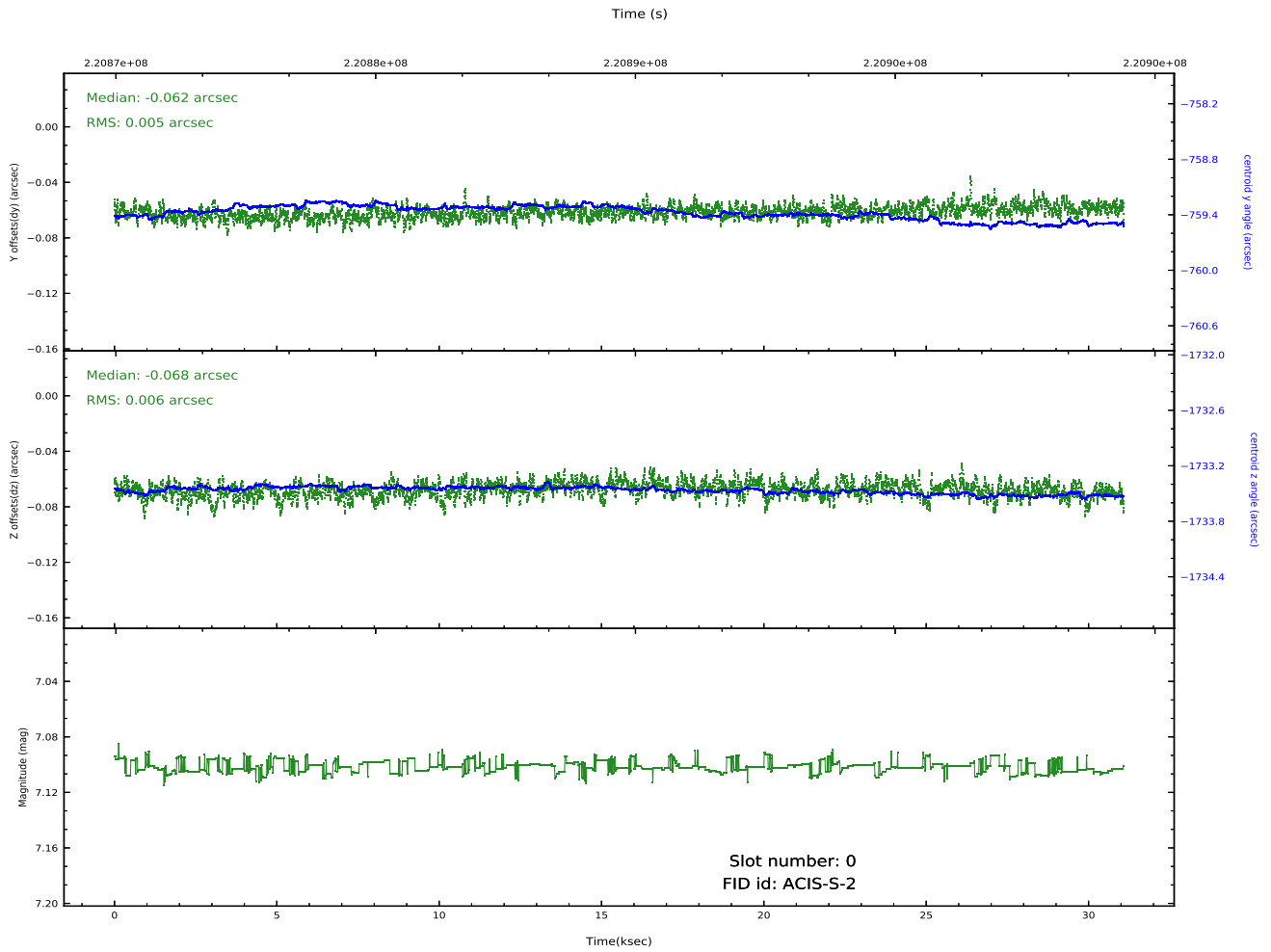
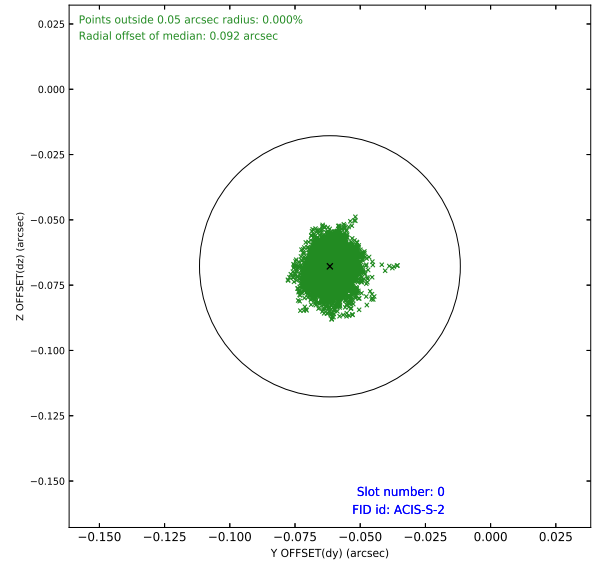
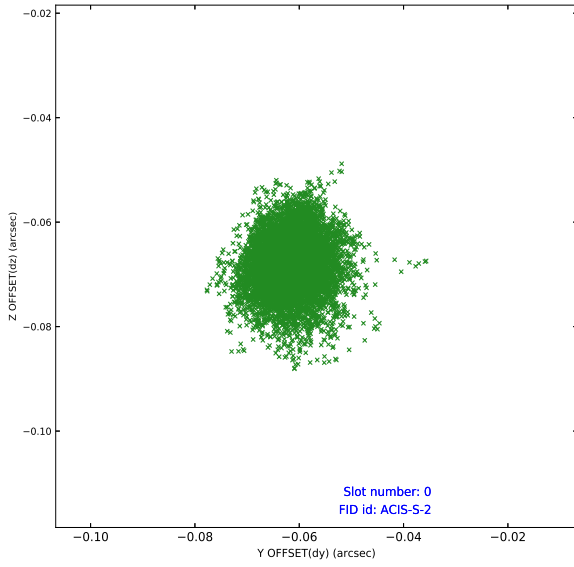


2.4.5 Slot 7

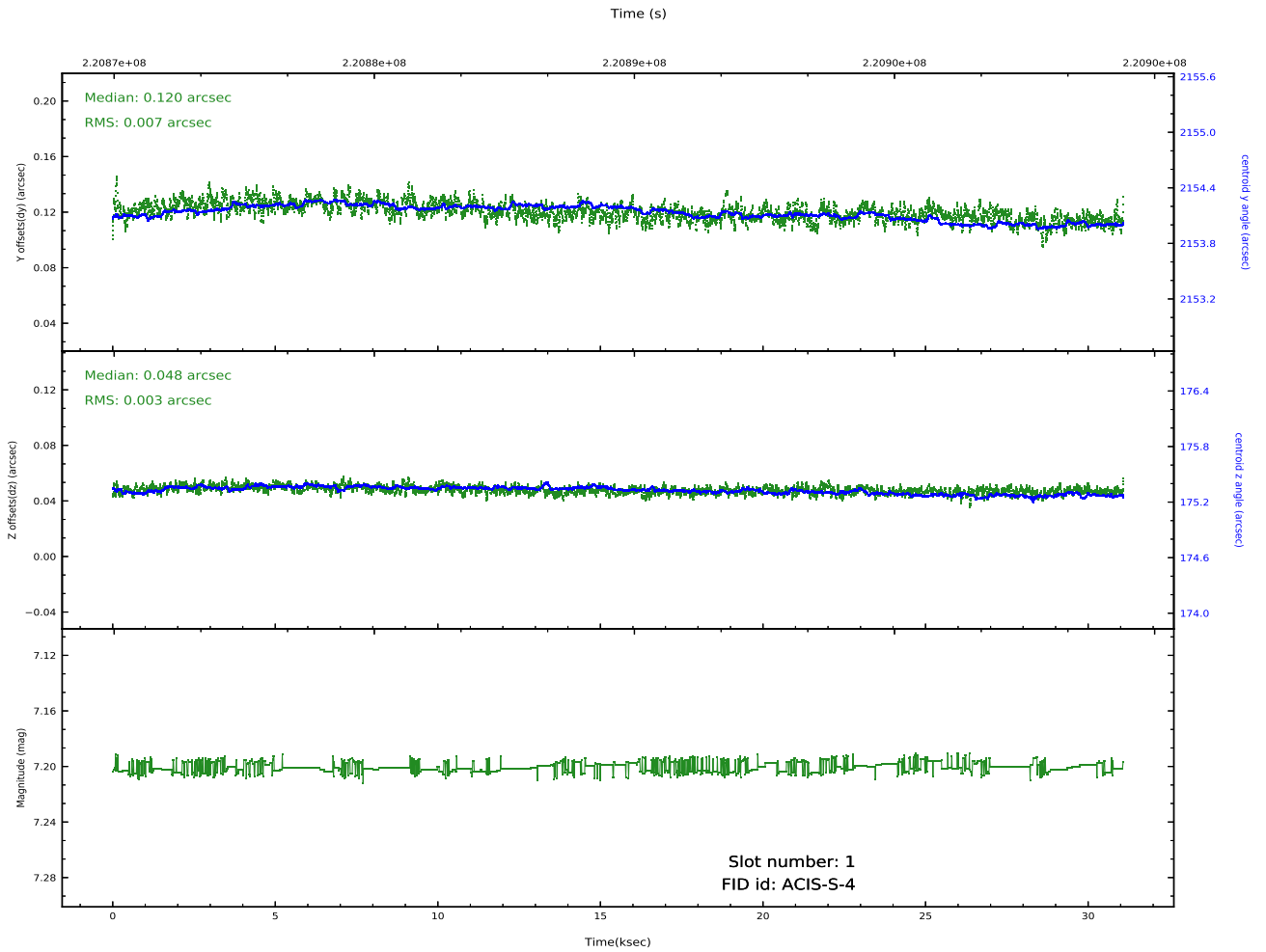
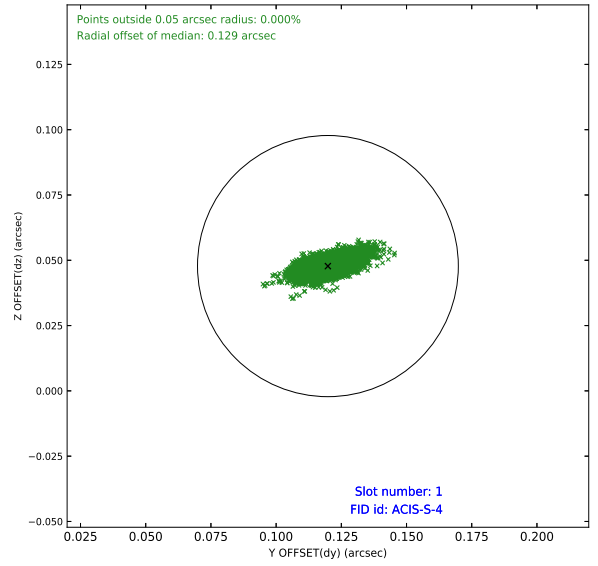
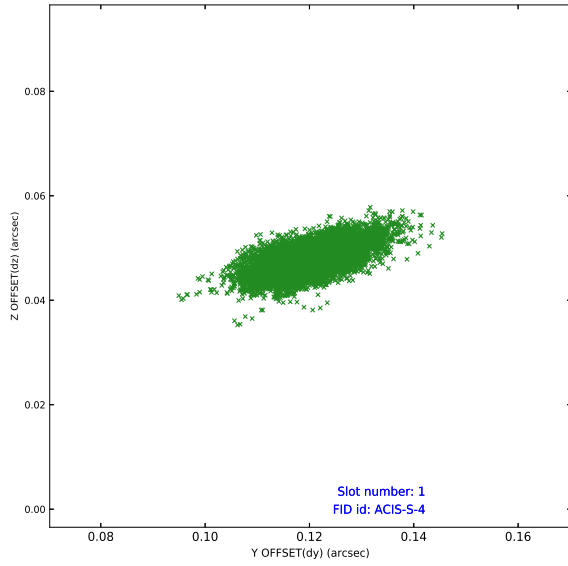


2.5 FID Slots

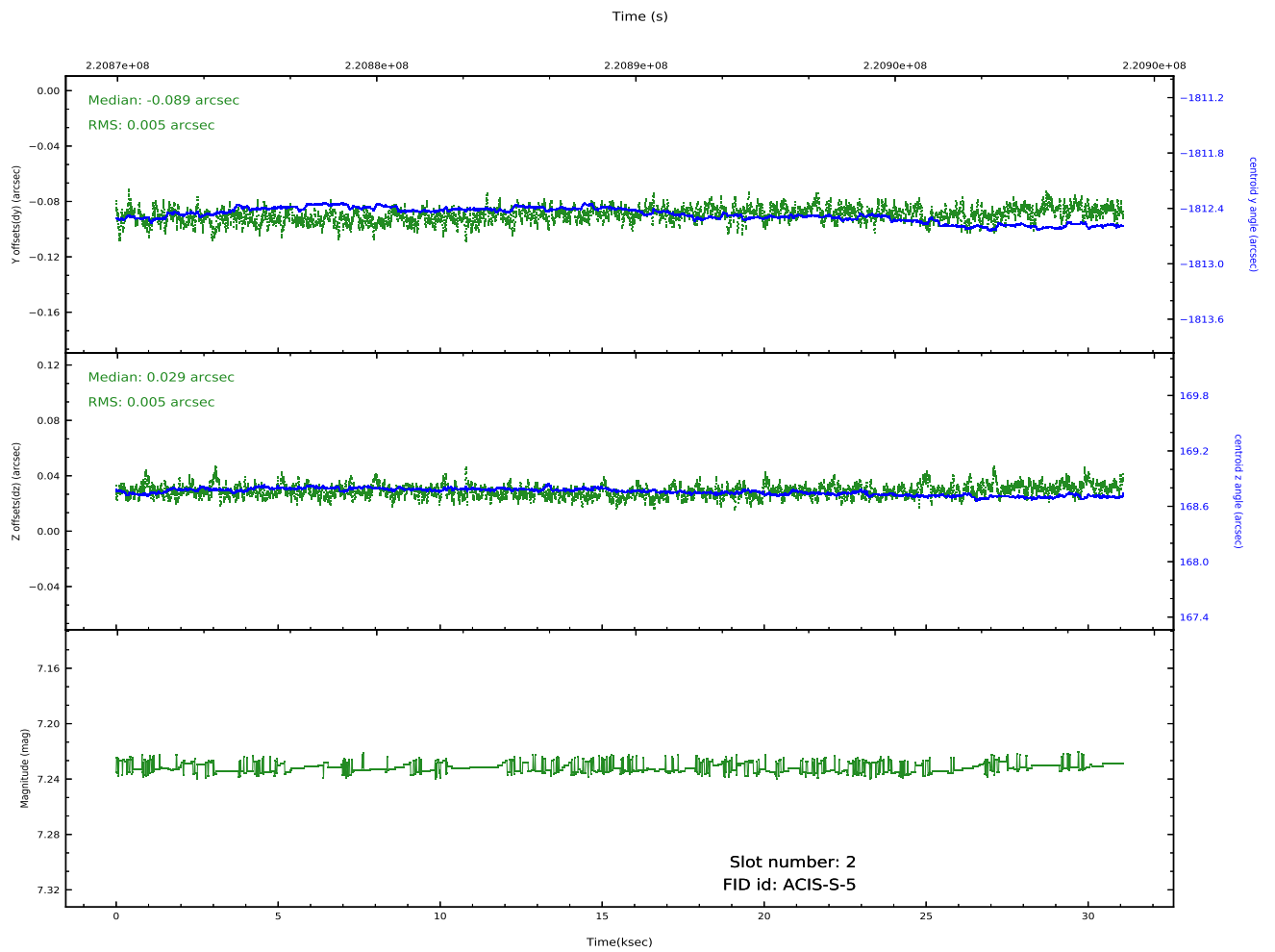
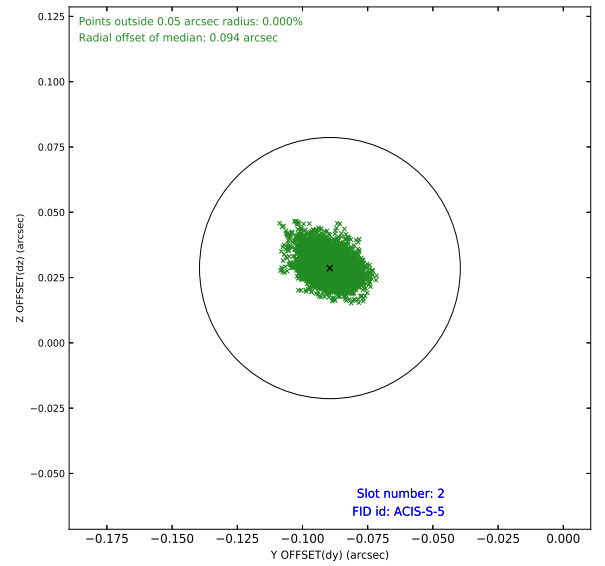
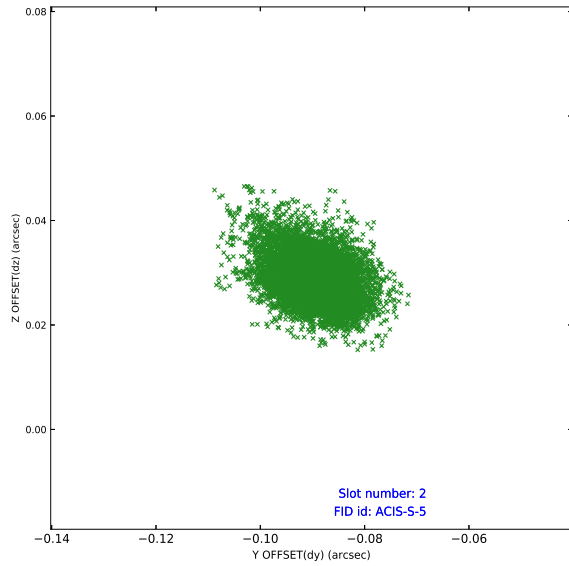
2.5.1 Slot 0



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)	2020.10.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.95519

A.2 Comments

Roll constraint satisfied.