

V&V Reference Report

L2 ASCDS Version : 10.9.1

Observation 4591 - L2 Version 7
Chandra X-Ray Center

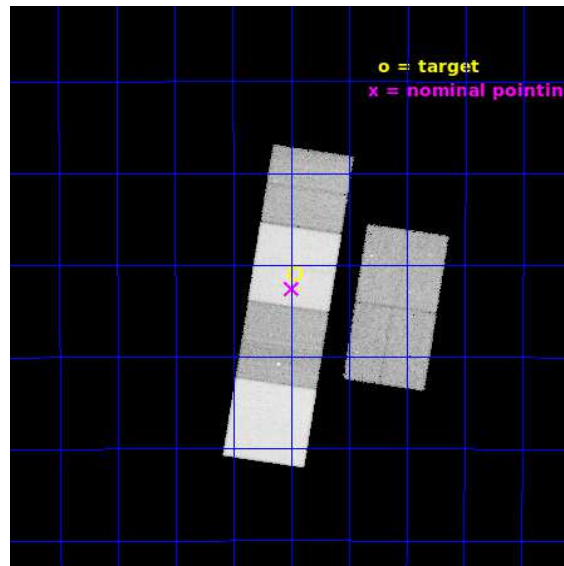
L2 Processing Date : Oct 7 2020

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1 Front

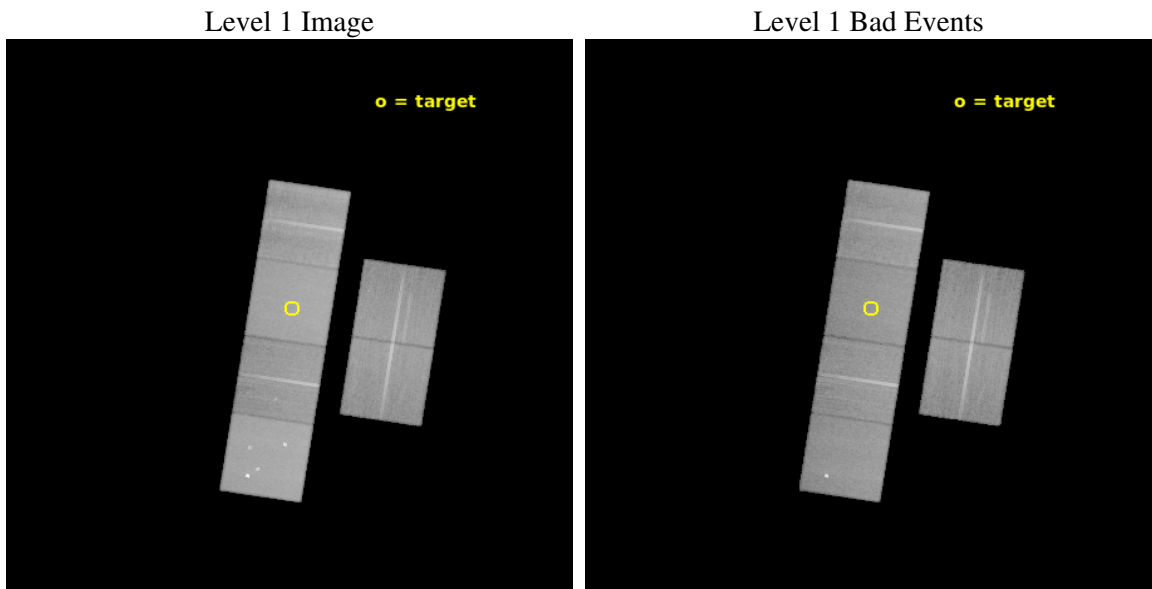
seq_num	500416	Sequence number
obs_id	4591	Observation id
title	A Chandra Search for Crab-like Supernova Remnants	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	SNR G351.2+0.1	Source name
dtycycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	260.616667	Observer's specified target RA [deg]
dec_targ	-36.183333	Observer's specified target Dec [deg]
ra_nom	260.62313031009	Nominal RA [deg]
dec_nom	-36.209799182566	Nominal Dec [deg]
roll_nom	278.72765902843	Nominal Roll [deg]
revision	7	Processing version of data
ontime	41446.3998456	Sum of GTIs [s]
livetime	40921.580574729	Livetime [s]
ontime2	41158.842717439	Sum of GTIs [s]
ontime3	41170.915346116	Sum of GTIs [s]
ontime5	41446.3998456	Sum of GTIs [s]
ontime6	41190.361267656	Sum of GTIs [s]
ontime7	41446.3998456	Sum of GTIs [s]
ontime8	41204.421939999	Sum of GTIs [s]
l2events	533887	Number of level 2 events



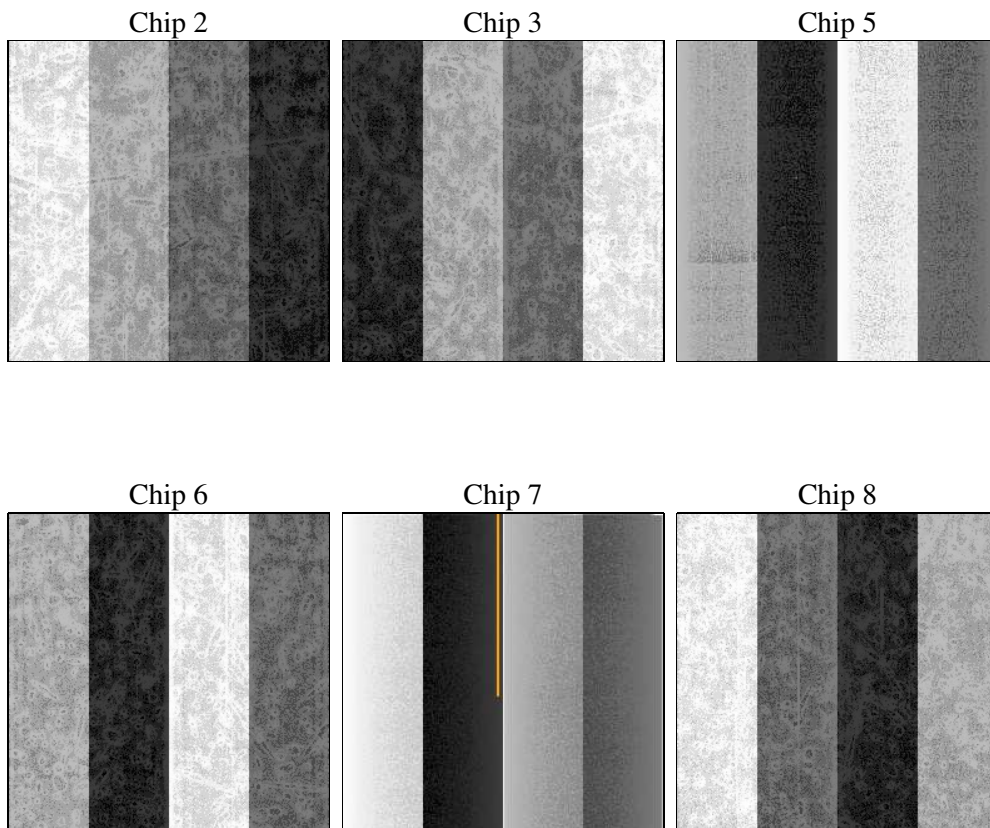
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	3	Obi number	sched_exp_time	44372.218000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	41446.3998456	Sum of GTIs [s]
caldbver	4.9.2	 	ontime2	41158.842717439	Sum of GTIs [s]
date	2020-10-07T18:07:48	Date and time of file creation	ontime3	41170.915346116	Sum of GTIs [s]
revision	7	Processing version of data	ontime5	41446.3998456	Sum of GTIs [s]
			ontime6	41190.361267656	Sum of GTIs [s]
			ontime7	41446.3998456	Sum of GTIs [s]
			ontime8	41204.421939999	Sum of GTIs [s]
			l1events	2158070	Number of level 1 events

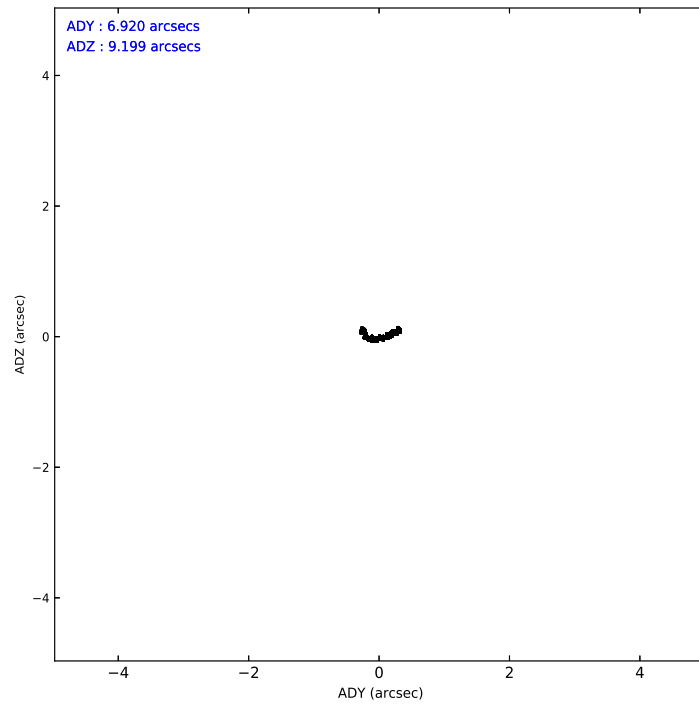
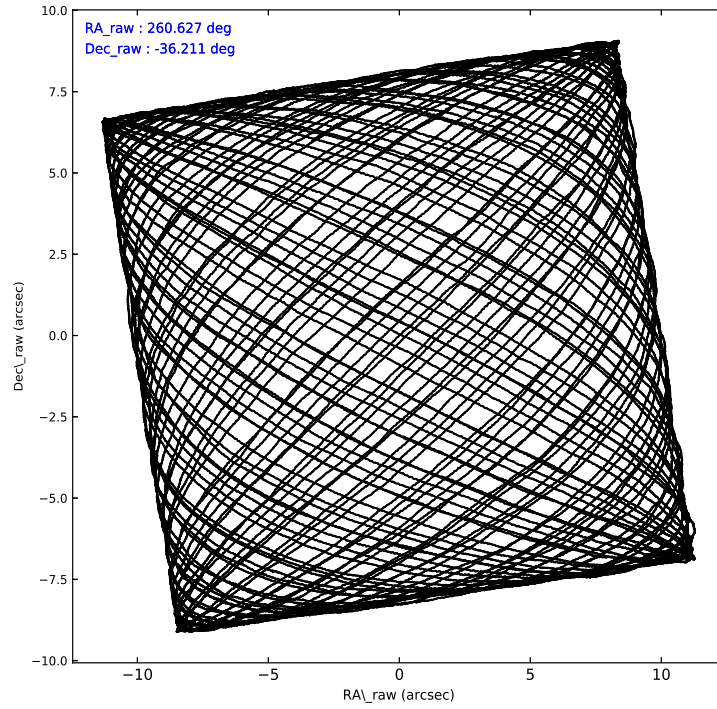
2.1.4 Events

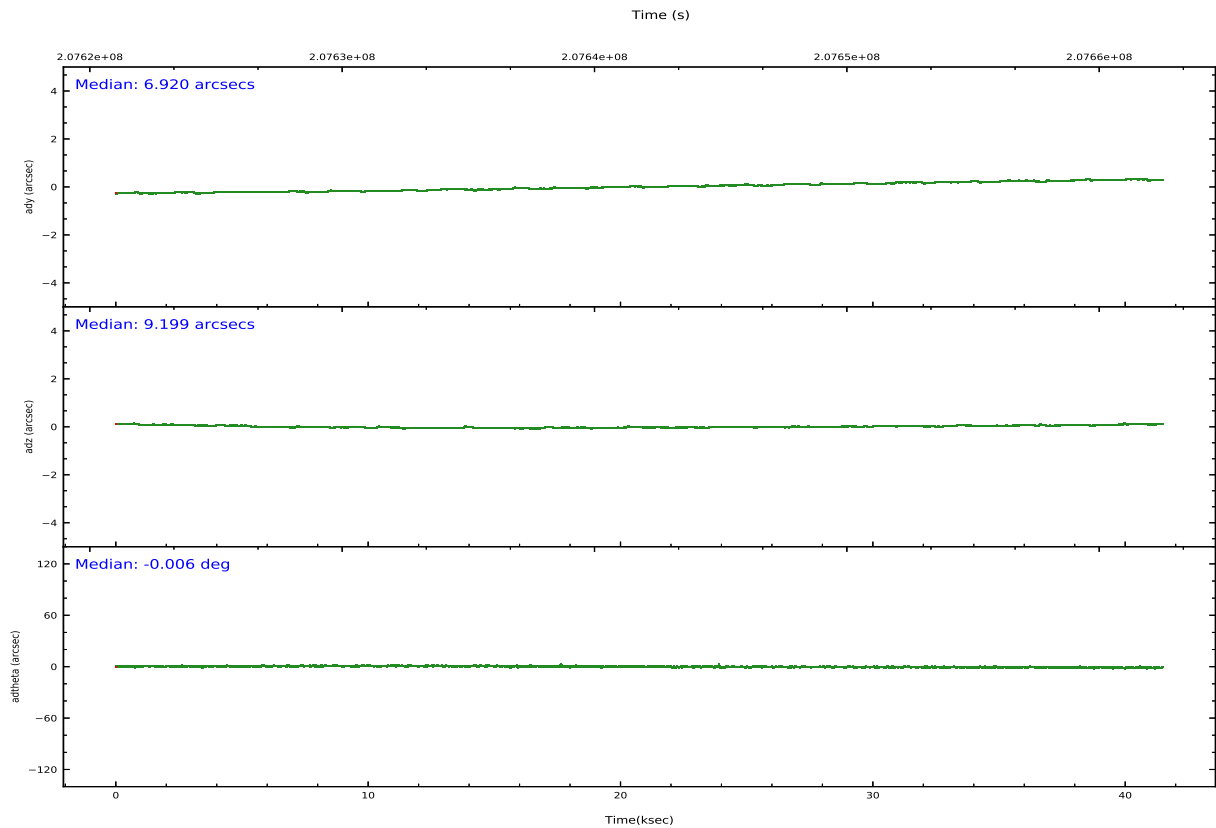
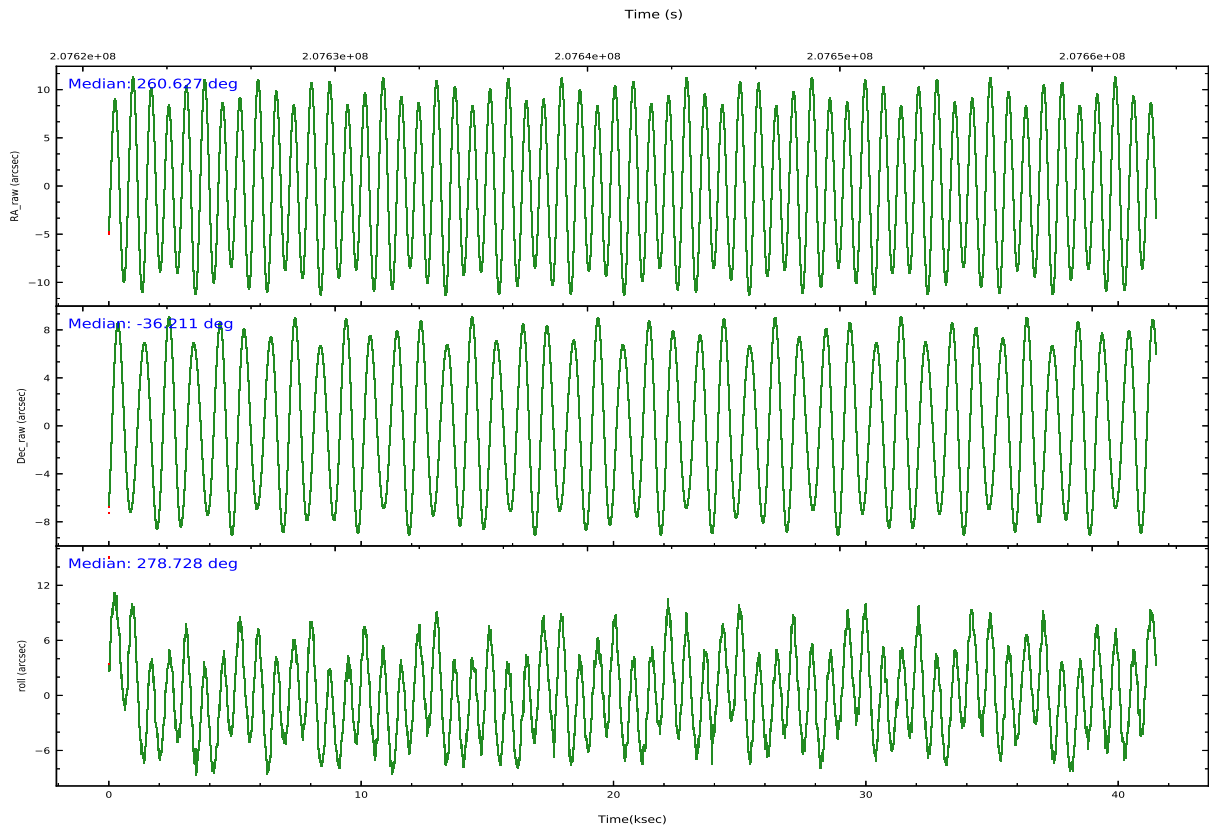
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	299131	289707	468645	301365	417629	381593	grade 0 events	19310	19499	23839	18356	17425	31195
rejected events	258663	248791	244461	259548	232887	290622		6%	6%	5%	6%	4%	8%
rejected %	86%	85%	52%	86%	55%	76%	grade 1 events	198	208	533	159	402	298
								0%	0%	0%	0%	0%	0%
							grade 2 events	7772	7385	70395	8296	36890	18792
								2%	2%	15%	2%	8%	4%
							grade 3 events	3438	3608	8516	3625	16443	9899
								1%	1%	1%	1%	3%	2%
							grade 4 events	3509	3636	8131	3708	16530	9075
								1%	1%	1%	1%	3%	2%
							grade 5 events	11406	12561	32711	13133	38121	17497
								3%	4%	6%	4%	9%	4%
							grade 6 events	6449	6824	113643	7869	97822	22075
								2%	2%	24%	2%	23%	5%
							grade 7 events	247049	235986	210877	246219	193996	272762
								82%	81%	44%	81%	46%	71%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	8	8
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	OVERRIDE	OVERRIDE
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	260.605317	260.62313031009	Subarray requested	NONE	NONE
[deg] Pointing Dec	-36.190440	-36.209799182566	Alternating exposures requested	N	N
[deg] Pointing Roll	278.557189	278.72765902843	[s] Primary exposure time	3.2	3.2
[mm] SIM focus pos	-0.6828225247311905	-0.6828225247311905			
[mm] SIM defocus	0.001444942264670179	0.001444942264670179			
[mm] SIM translation stage pos	-190.1400660498719	-190.1400660498719			
[mm] SIM translation stage offset	0.007542945904702947	0.007542945904702947			
[s] Observation start time (MET)	207621029.184000	207621029.184			
Observation start date	2004-07-31T00:29:25	2004-07-31T00:30:29			
[s] Observation end time (MET)	207662534.000000	207662534			
Observation end date	2004-07-31T12:02:14	2004-07-31T12:02:13			
Read mode	TIMED	TIMED			

2.3 Aspect





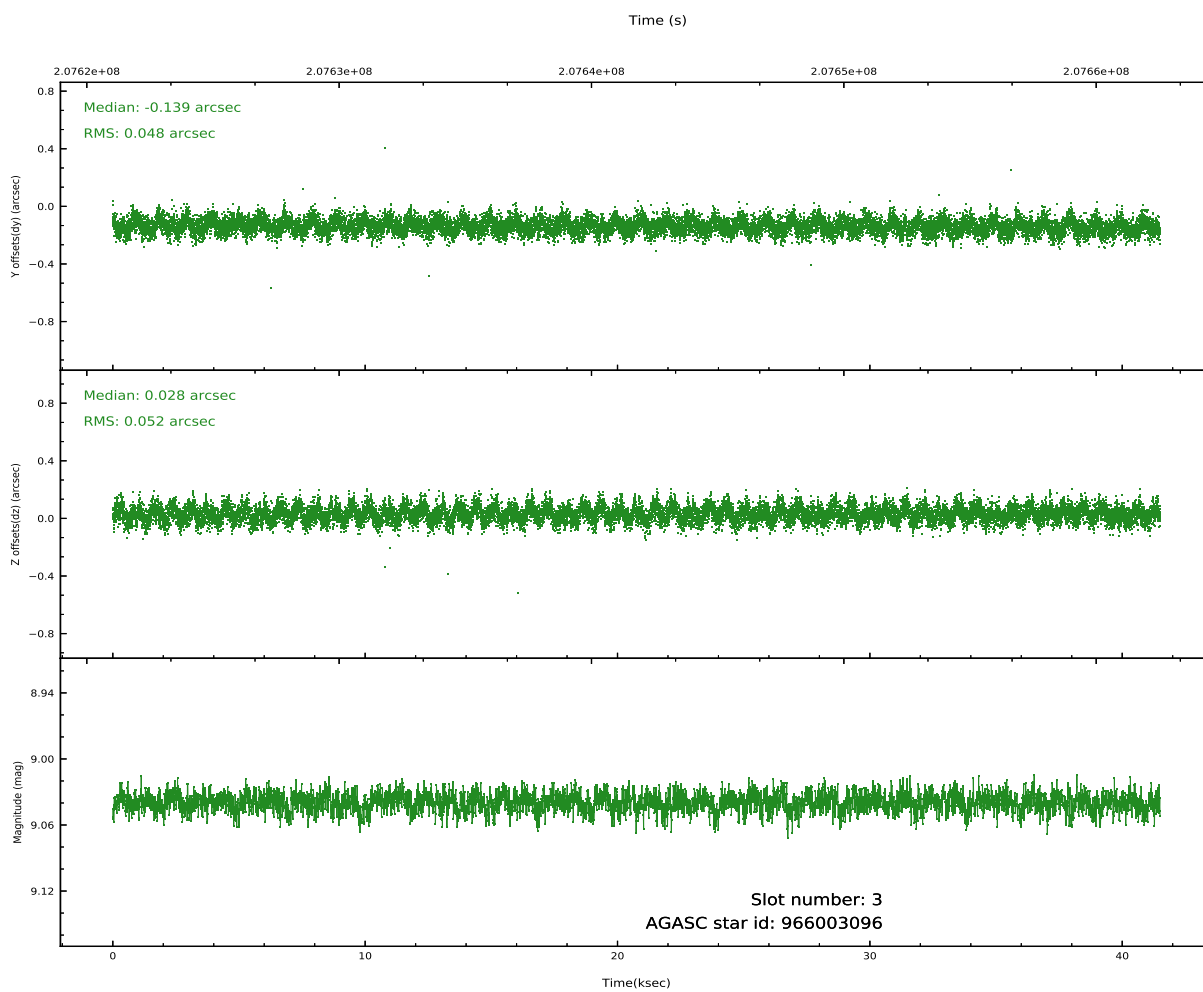
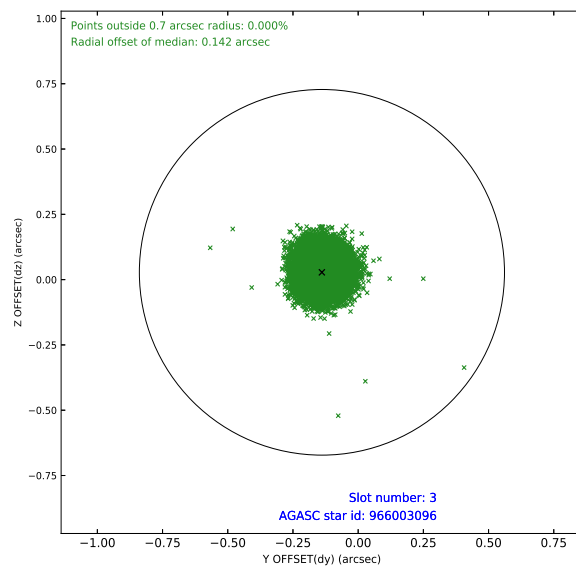
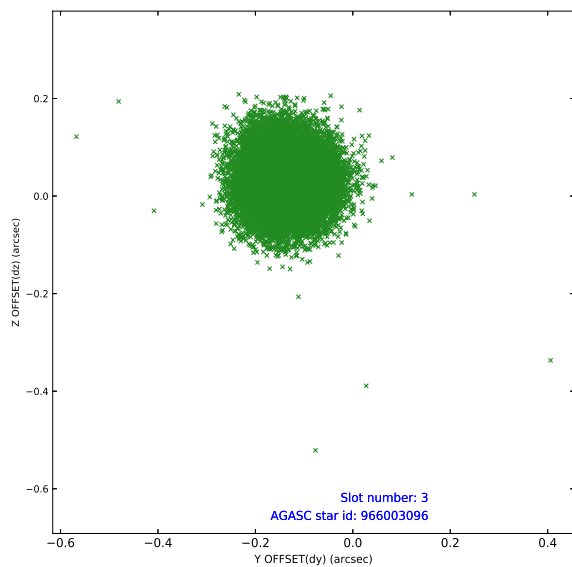
Slot Statistics

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-1	7.19	10123	1.000	0.051	-0.042	0.009	0.016	0.000000	0.000000	936.42	-1726
1	FID		ACIS-S-5	7.24	10123	1.000	-0.107	0.030	0.009	0.016	0.000000	0.000000	-1812.74	171
2	FID		ACIS-S-6	7.35	10122	1.000	0.035	0.024	0.007	0.012	0.000000	0.000000	401.94	815
3	GUIDE	used	966003096	9.04	20238	1.000	-0.139	0.028	0.075	0.121	260.360642	-35.600982	-2203.74	-392
4	GUIDE	used	966530176	8.78	20233	1.000	0.039	-0.004	0.067	0.107	260.167913	-36.682742	1568.11	-1512
5	GUIDE	used	966530504	9.02	20242	1.000	0.032	-0.044	0.079	0.124	260.219400	-36.072372	-584.57	-1047
6	GUIDE	used	966530544	8.77	20238	1.000	0.202	0.115	0.114	0.170	260.631187	-36.513761	1162.82	-98
7	GUIDE	used	966532344	9.30	20238	1.000	-0.133	-0.093	0.114	0.175	259.784322	-35.840467	-1591.90	-2183

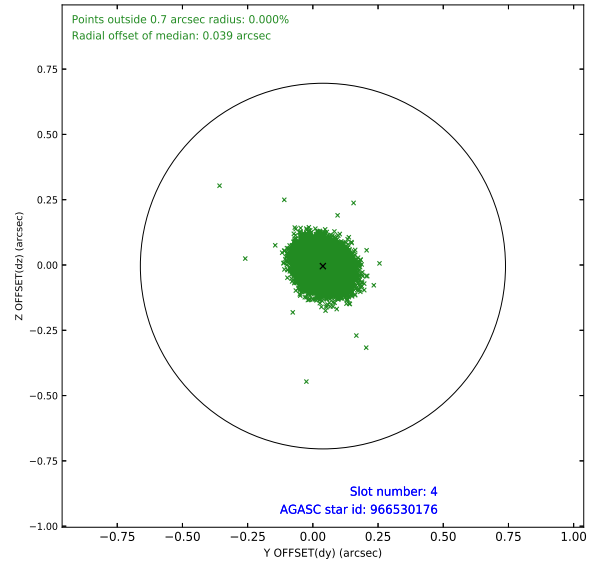
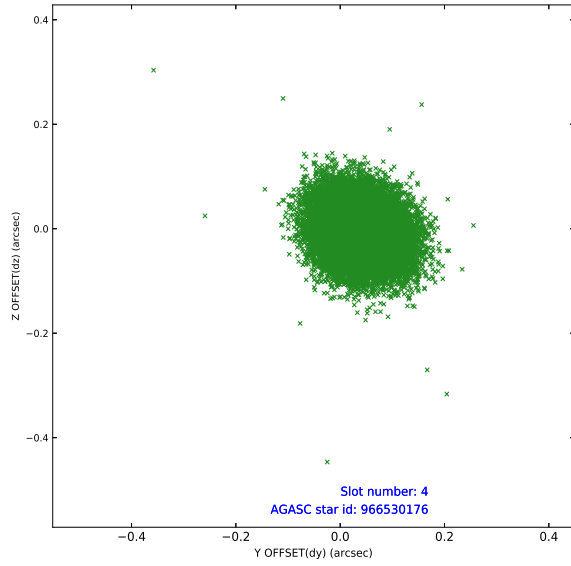
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2.4 Star Slots

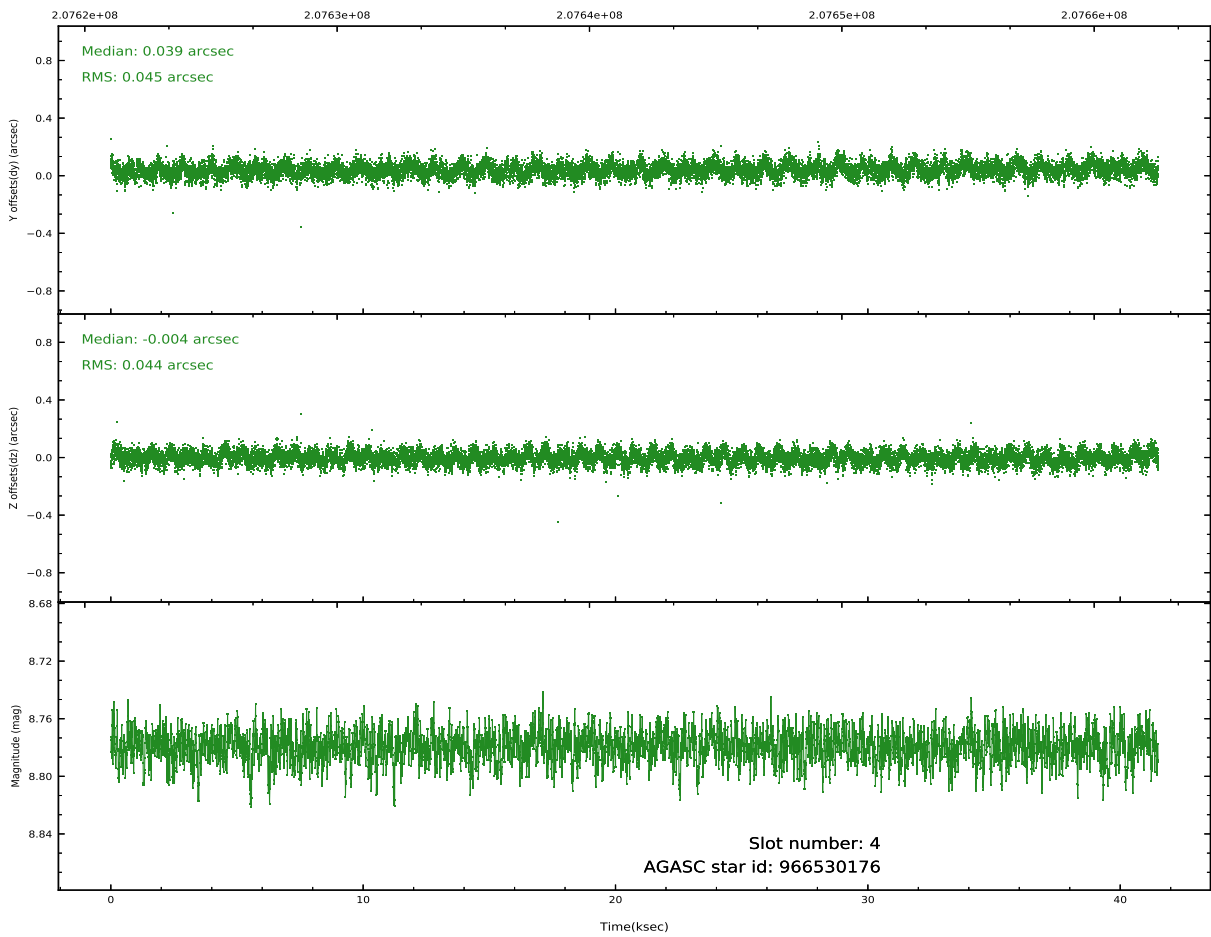
2.4.1 Slot 3



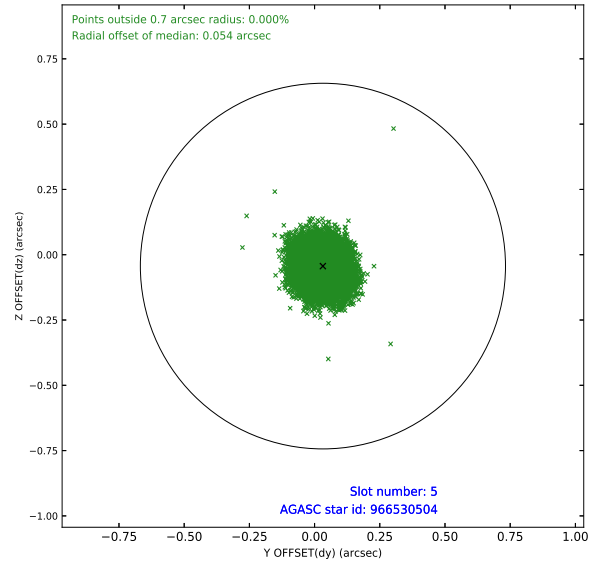
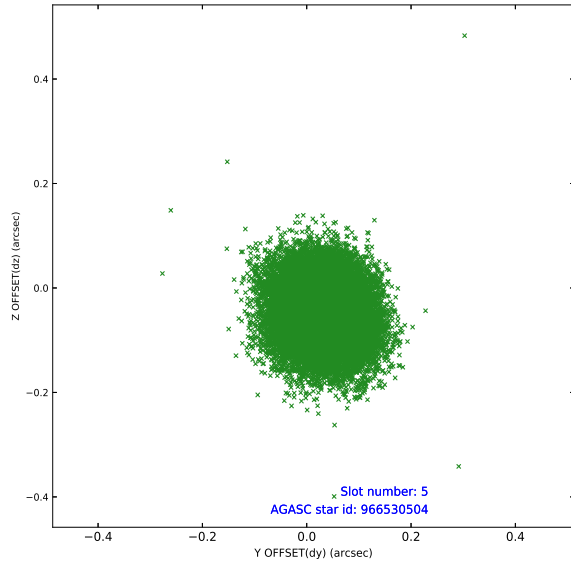
2.4.2 Slot 4



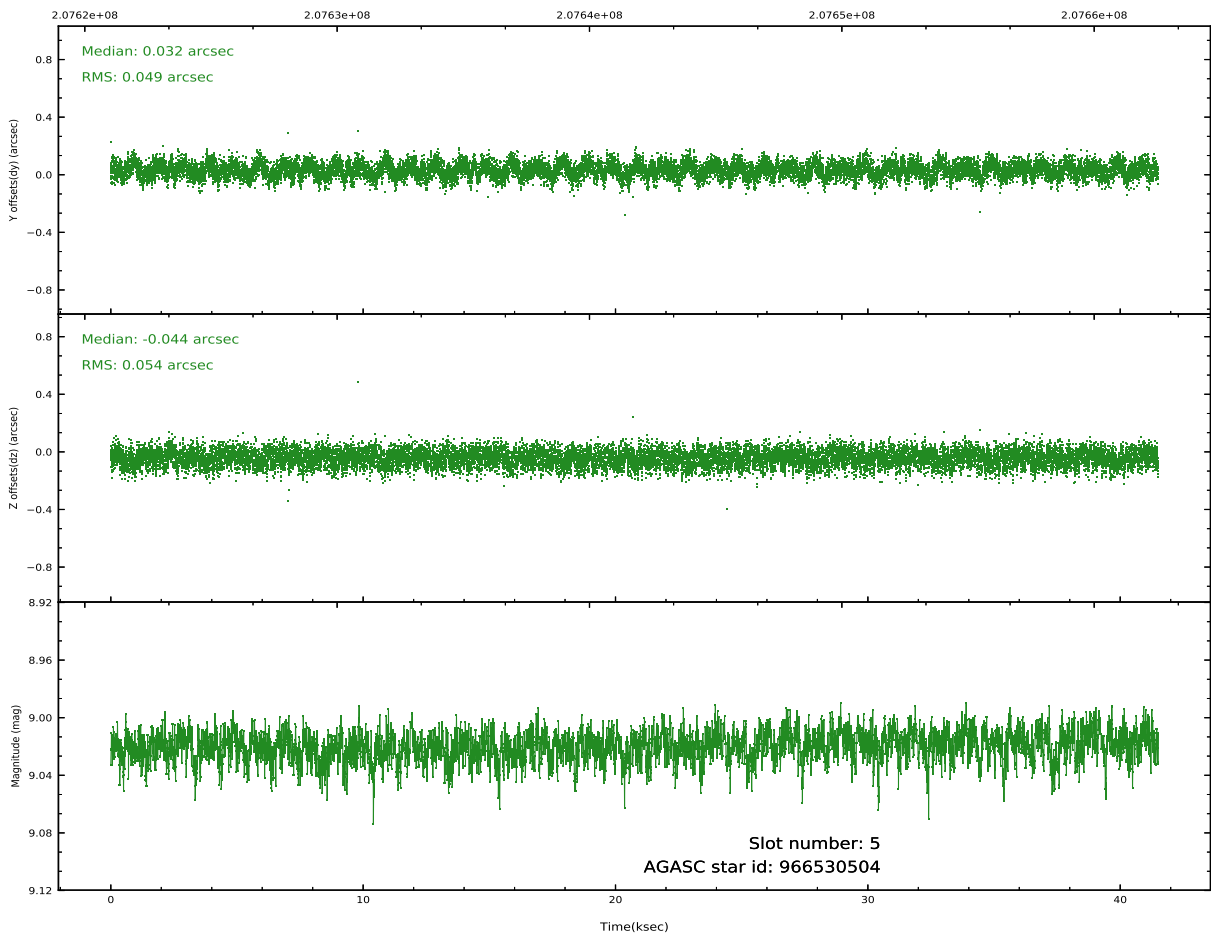
Time (s)



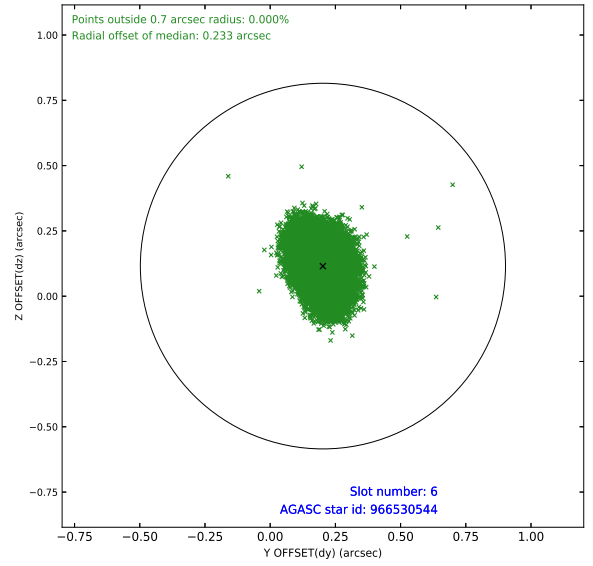
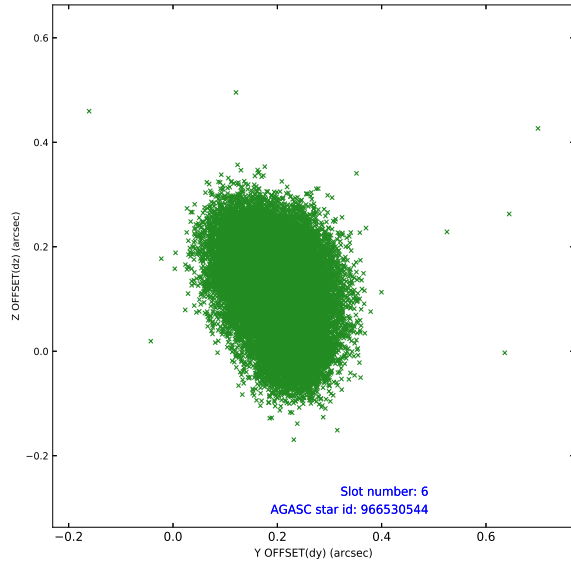
2.4.3 Slot 5



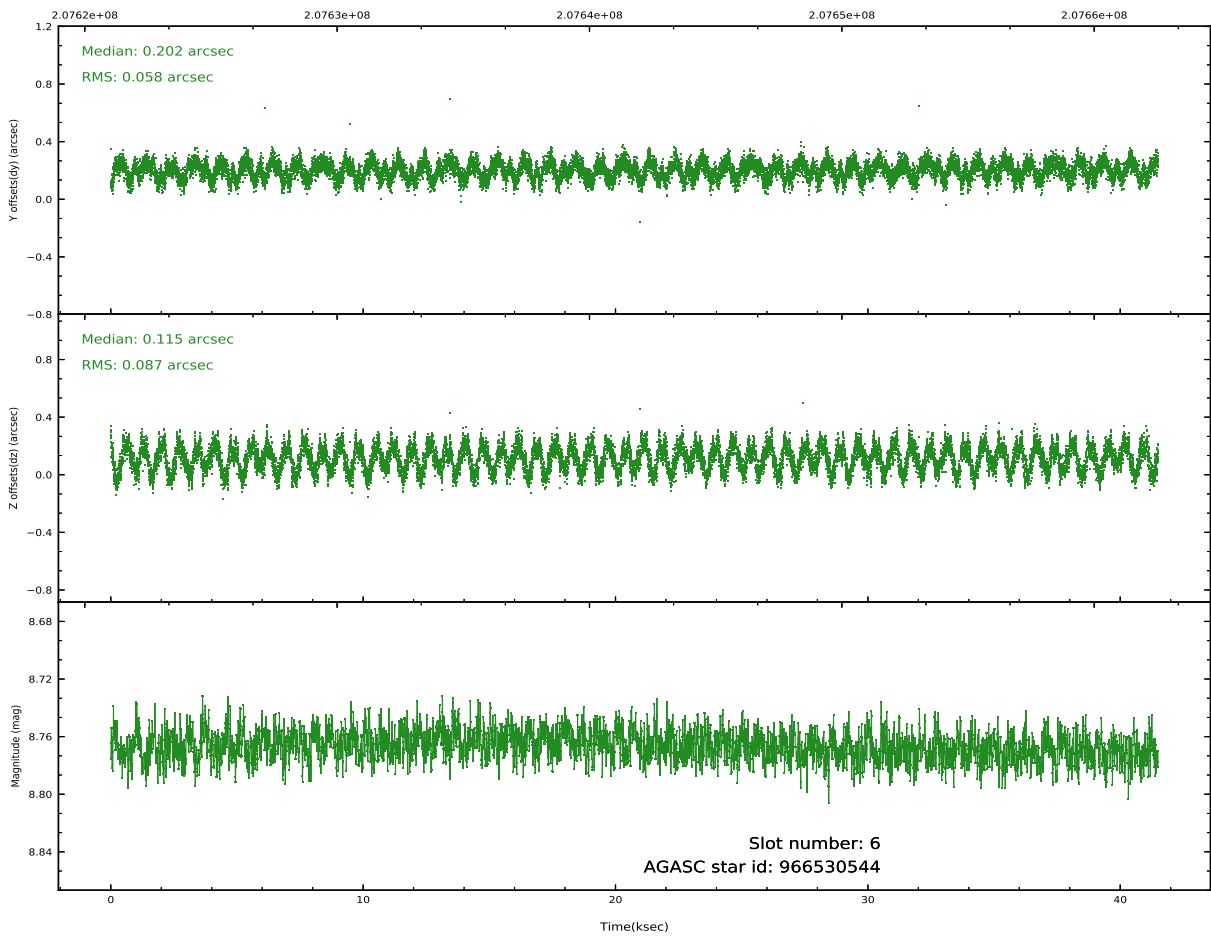
Time (s)



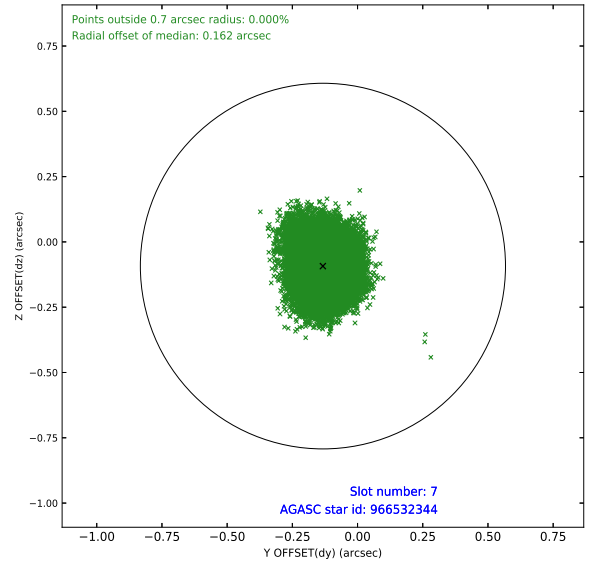
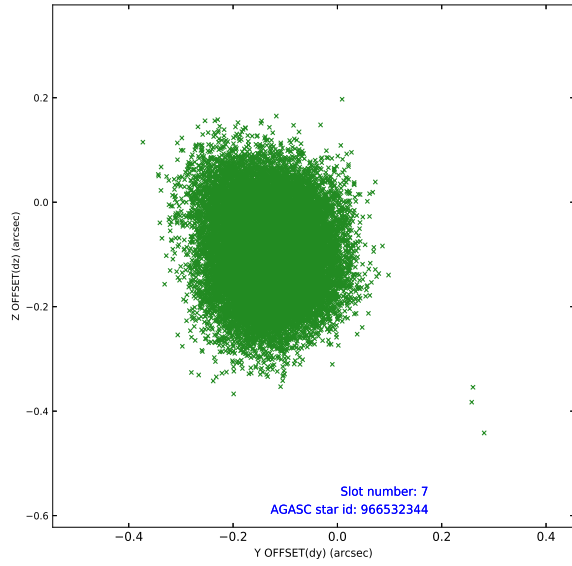
2.4.4 Slot 6



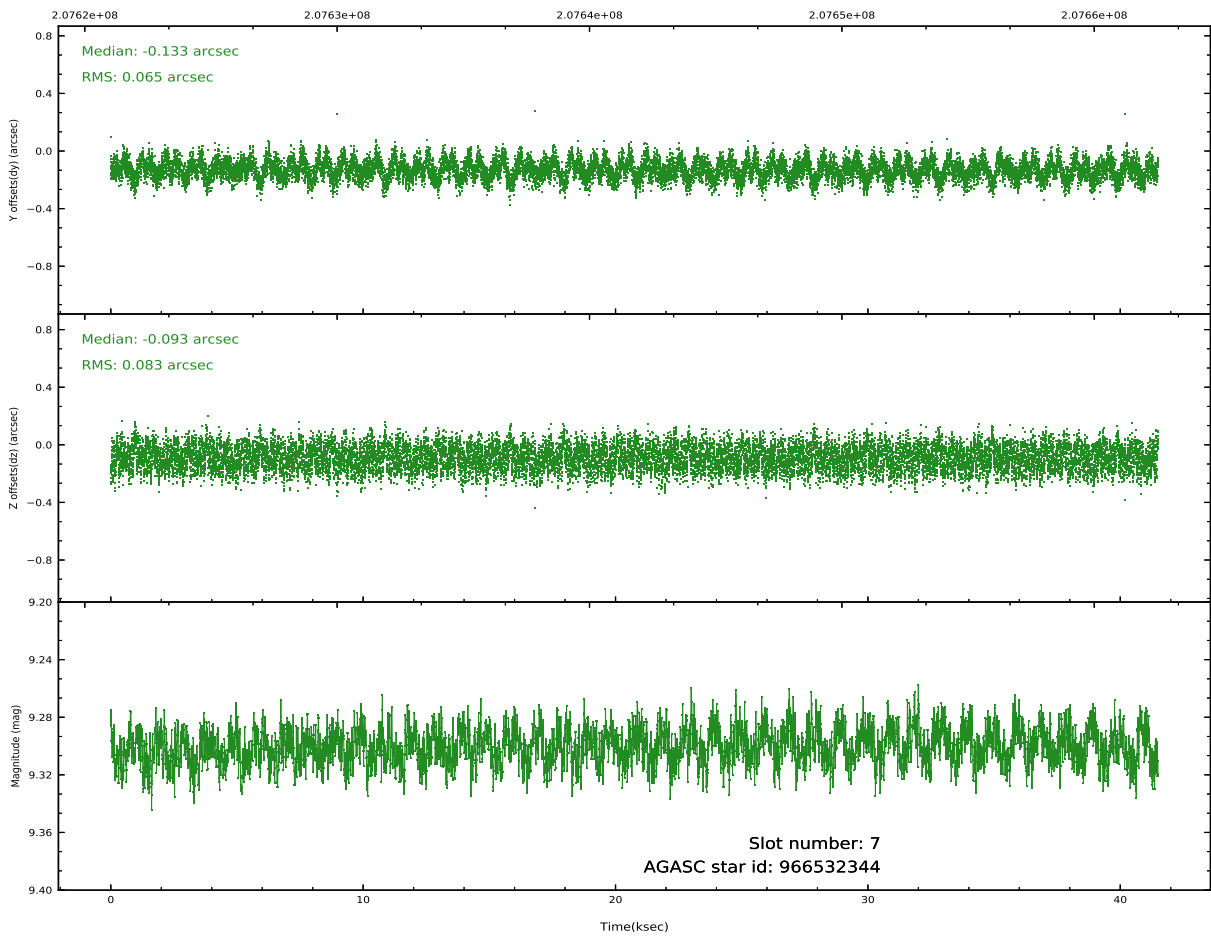
Time (s)



2.4.5 Slot 7

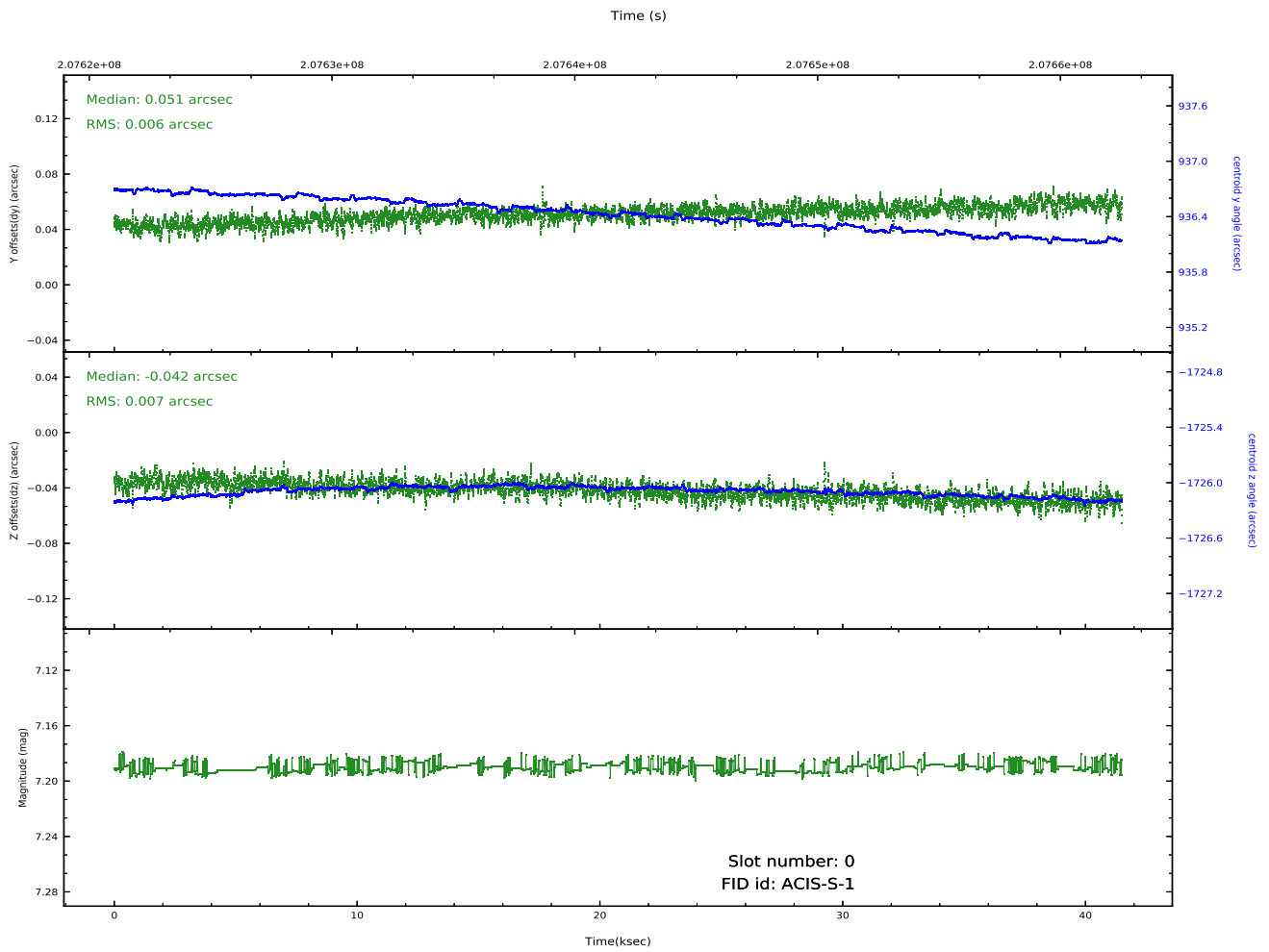
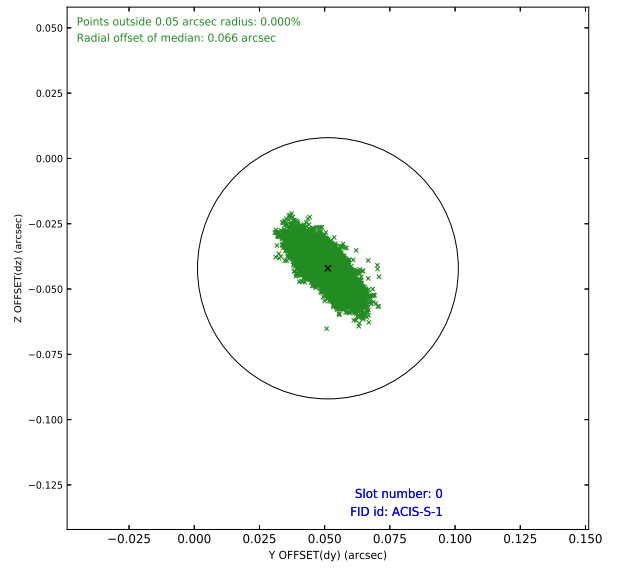
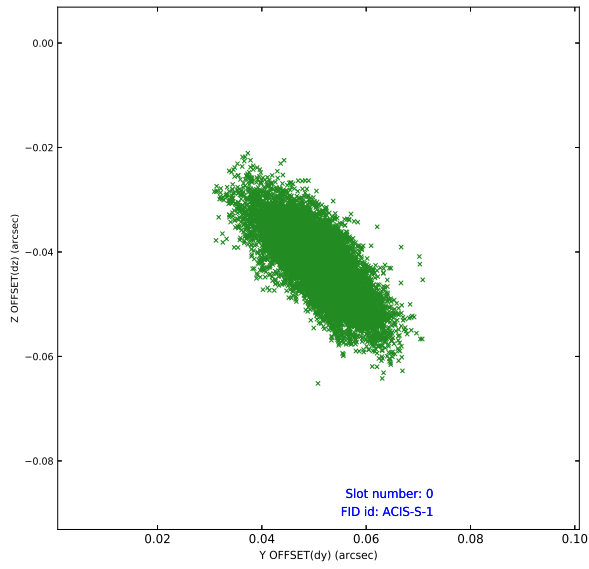


Time (s)

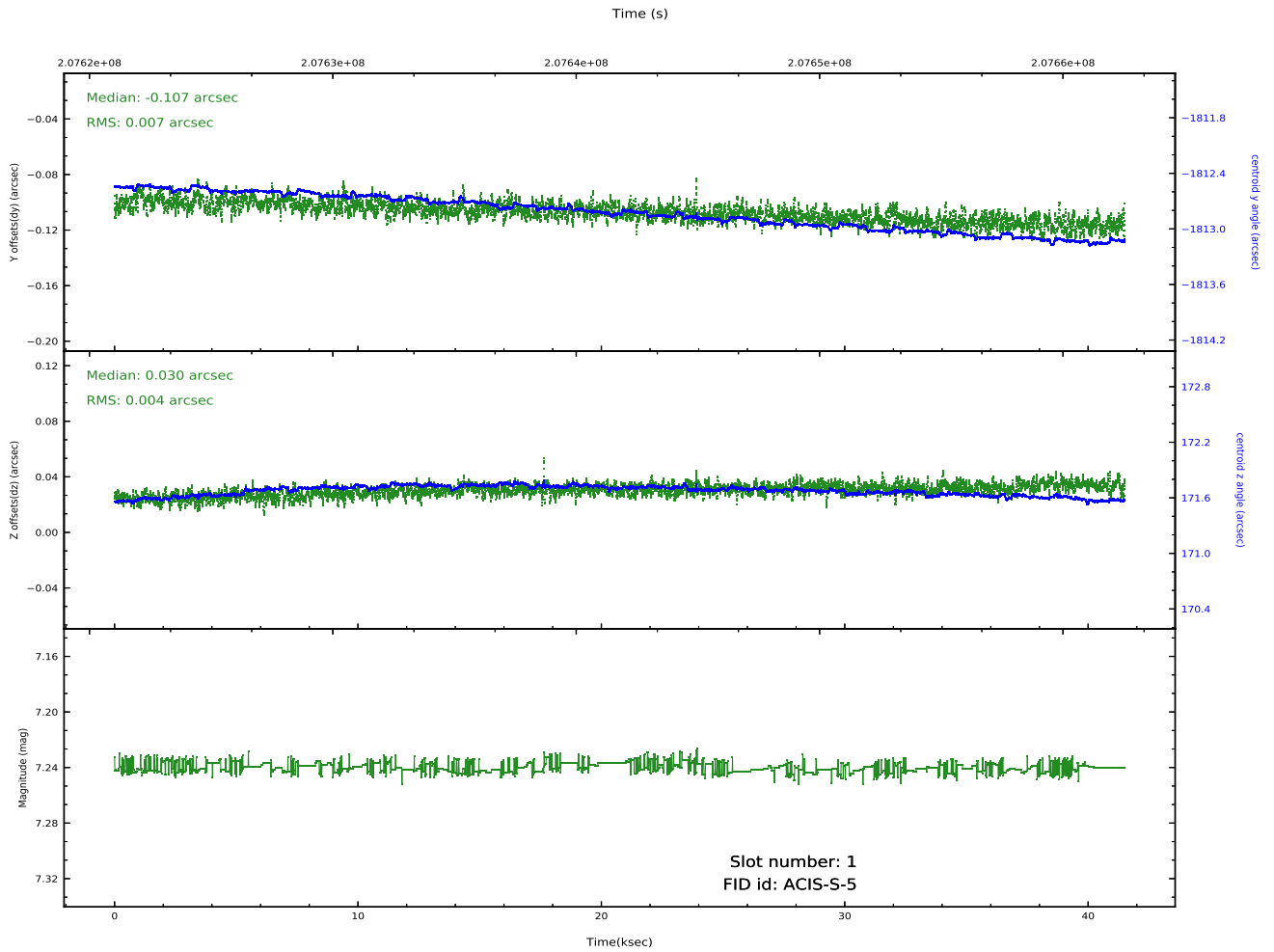
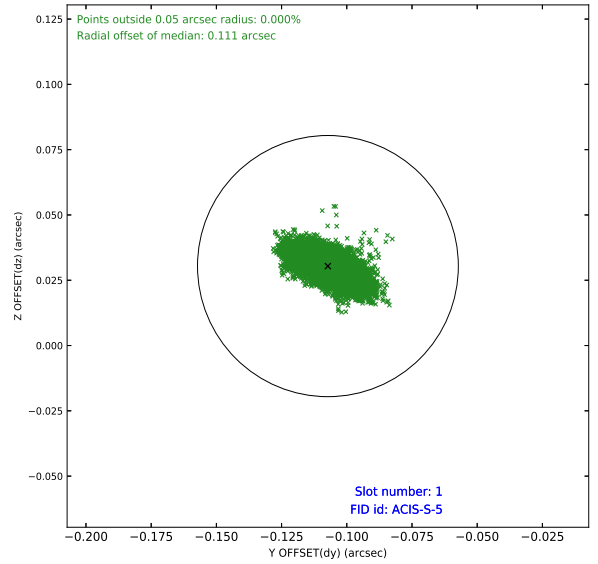
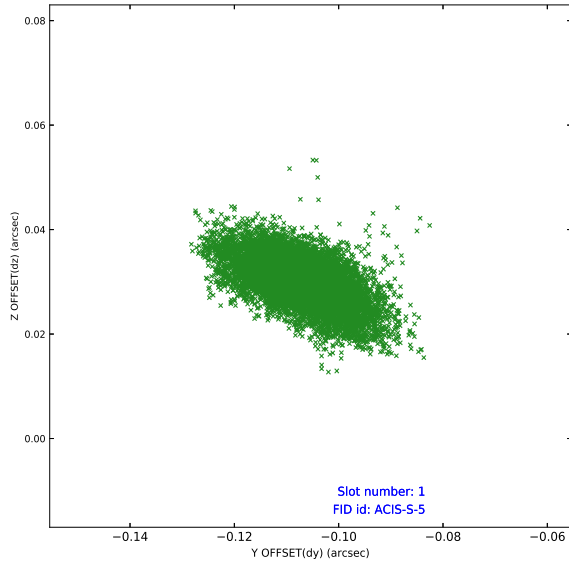


2.5 FID Slots

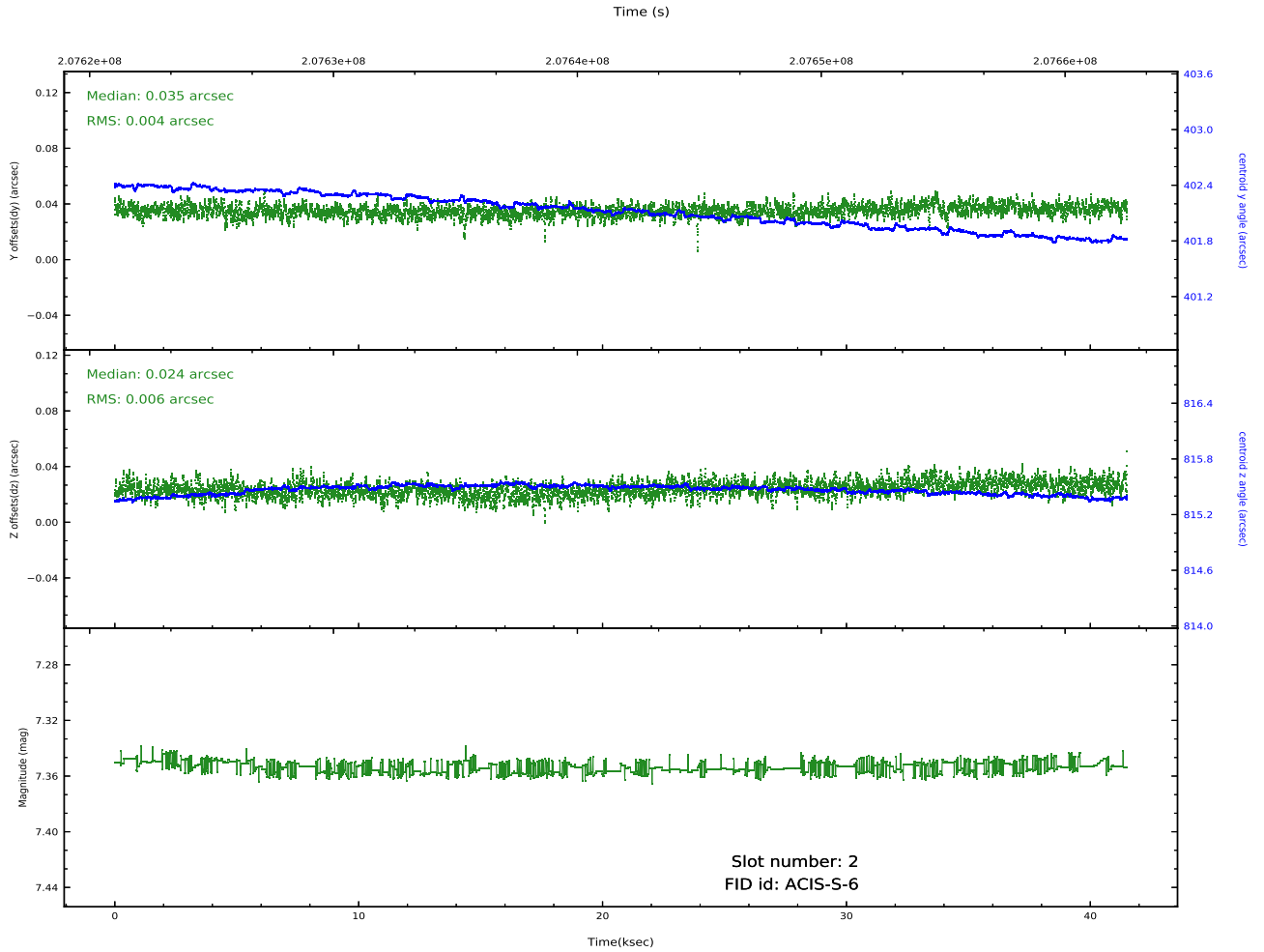
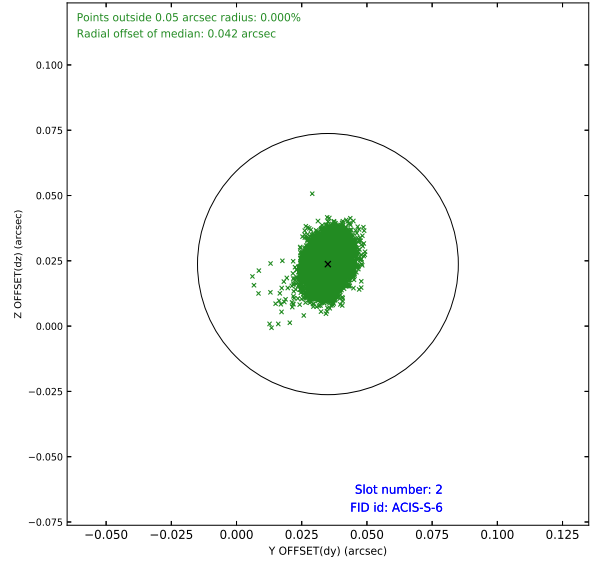
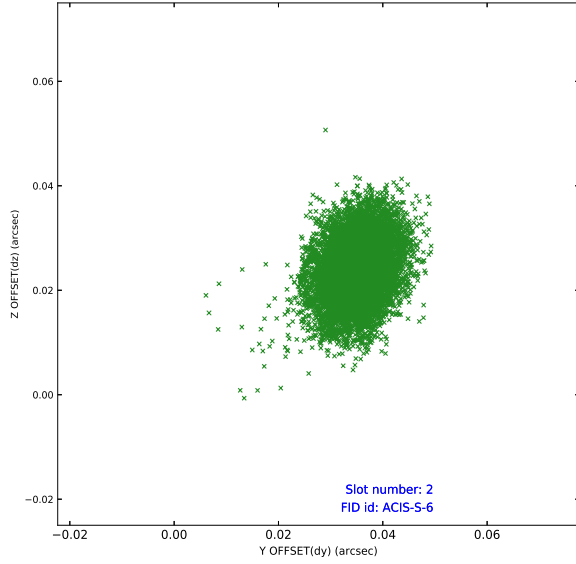
2.5.1 Slot 0



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)	2020.10.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.497

A.2 Comments

Charge time for this observation remains at previous value of 41.497 ksec, although with the current processing the charge time would have been 41.446 ksec.

===

This observation was interrupted by safing of the science instruments due to high solar radiation environment. The observation was interrupted at 2004:213:12:01.

===

A spatial region of the original bias map for CCD = 8 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 = 8 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:

(260.62122, -36.07512), (260.62030, -36.07026), (260.52182, -36.08247), (260.52274, -36.08733).