

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22234 - L2 Version 1
Chandra X-Ray Center

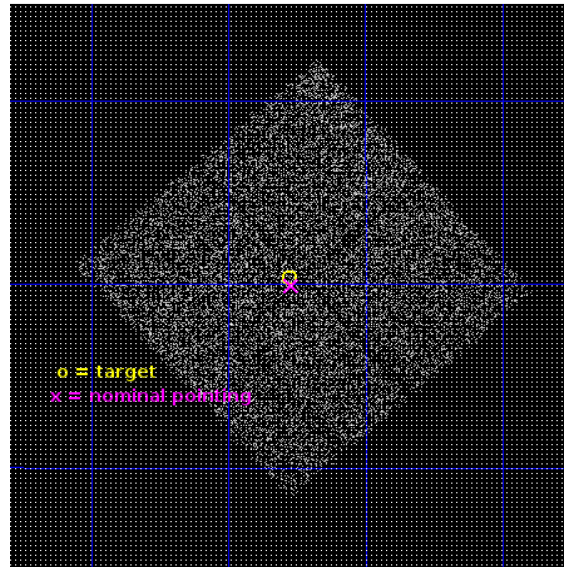
L2 Processing Date : May 27 2019

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1 Front

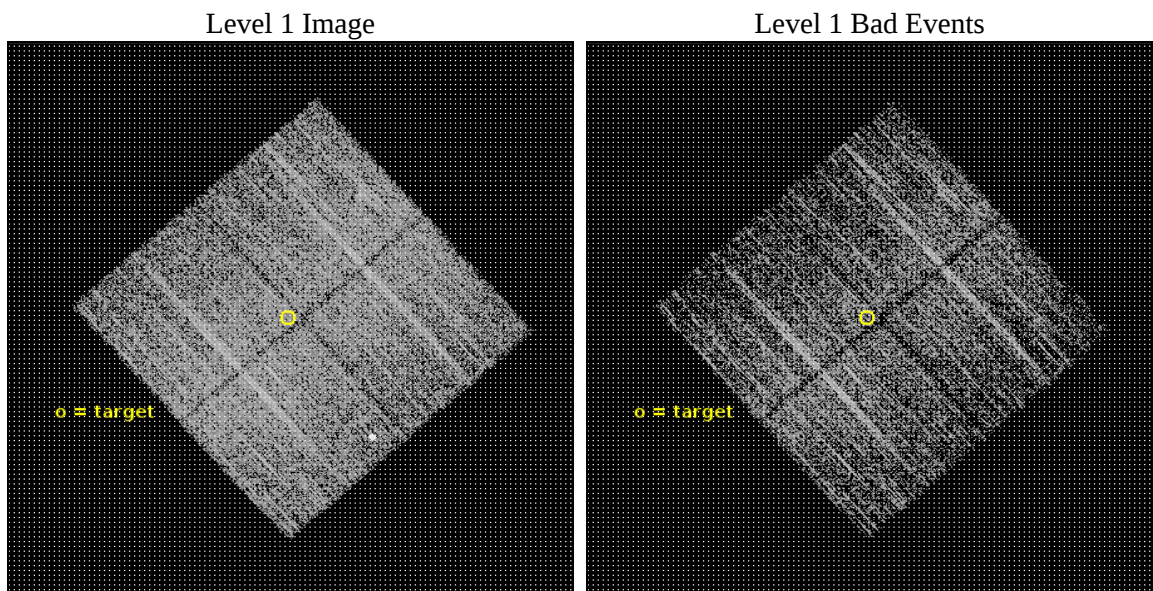
seq_num	703813	Sequence number
obs_id	22234	Observation id
title	Black Holes in Green Peas?	Proposal title
observer	Sangeeta Malhotra	Principal investigator
object	J132916.55+170020.9	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	202.319167	Observer's specified target RA [deg]
dec_targ	17.005833	Observer's specified target Dec [deg]
ra_nom	202.31748801386	Nominal RA [deg]
dec_nom	16.998558343089	Nominal Dec [deg]
roll_nom	228.4091713206	Nominal Roll [deg]
revision	1	Processing version of data
ontime	5077.8000391722	Sum of GTIs [s]
livetime	5011.4548434384	Livetime [s]
ontime0	5077.8000391722	Sum of GTIs [s]
ontime1	5077.8000391722	Sum of GTIs [s]
ontime2	5077.8000391722	Sum of GTIs [s]
ontime3	5077.8000391722	Sum of GTIs [s]
l2events	14062	Number of level 2 events



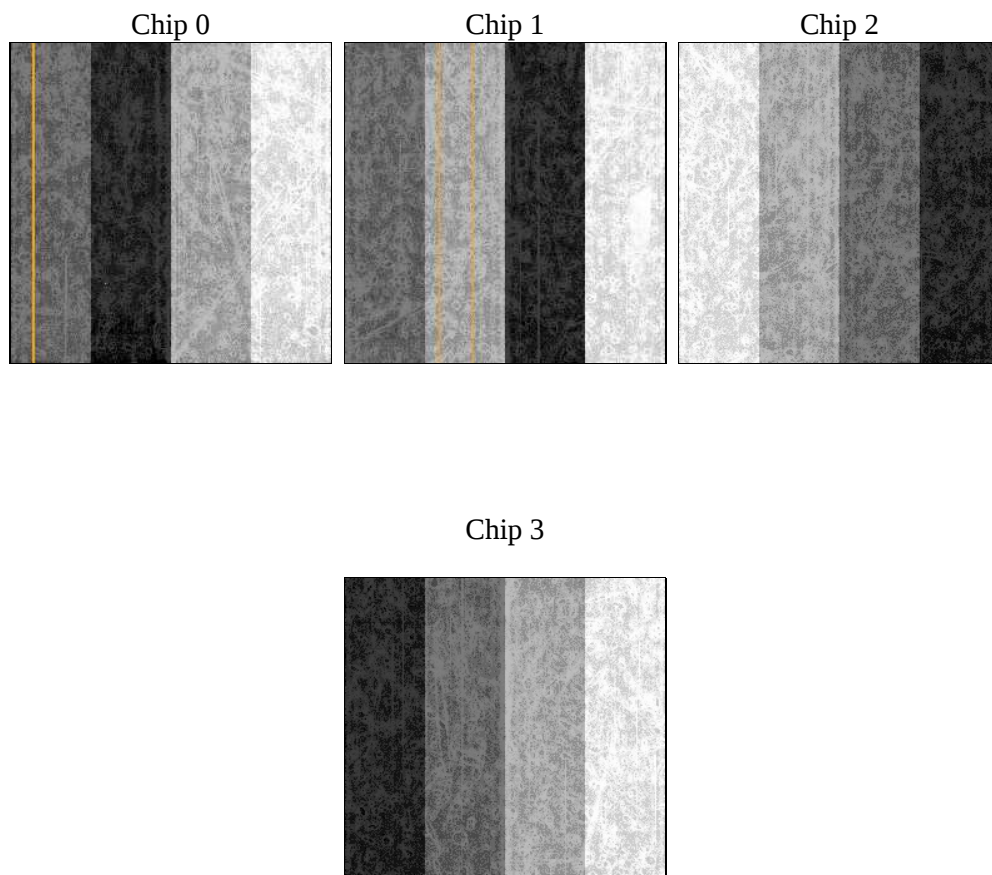
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	5077.8000391722	Sum of GTIs [s]
caldbver	4.8.3	 	ontime0	5077.8000391722	Sum of GTIs [s]
date	2019-05-27T20:15:15	Date and time of file creation	ontime1	5077.8000391722	Sum of GTIs [s]
revision	1	Processing version of data	ontime2	5077.8000391722	Sum of GTIs [s]
			ontime3	5077.8000391722	Sum of GTIs [s]
			l1events	152117	Number of level 1 events

2.1.4 Events

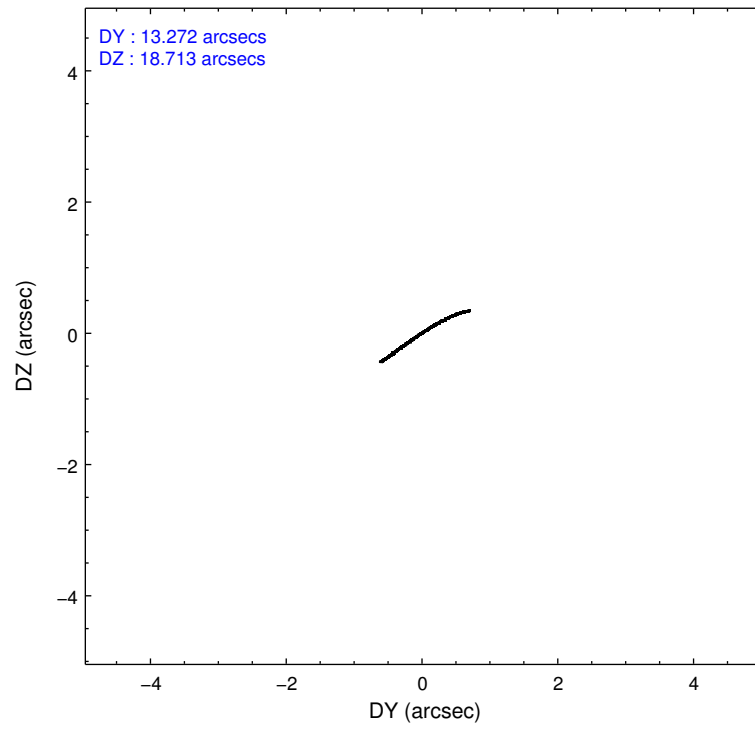
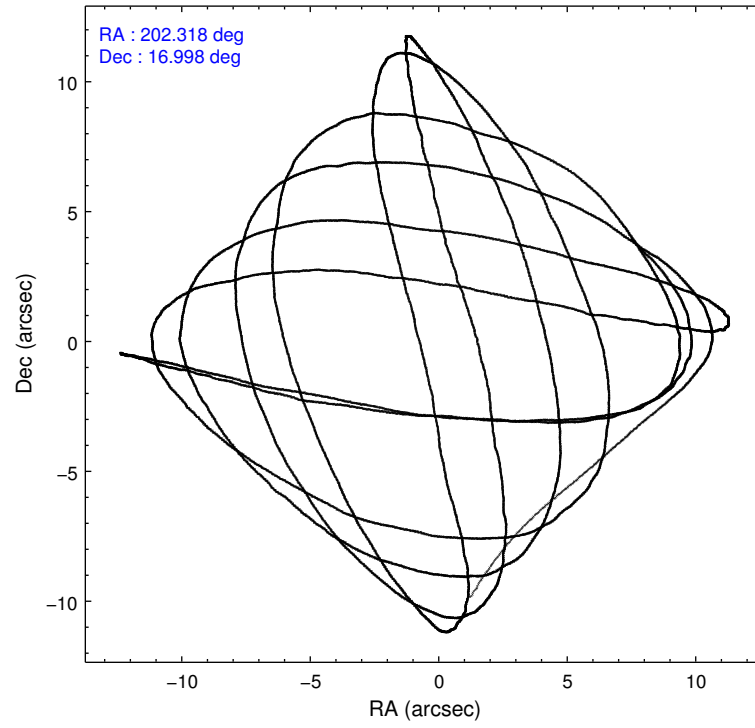
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	35849	38388	41566	36314
rejected events	31705	33745	36077	32347
rejected %	88%	87%	86%	89%

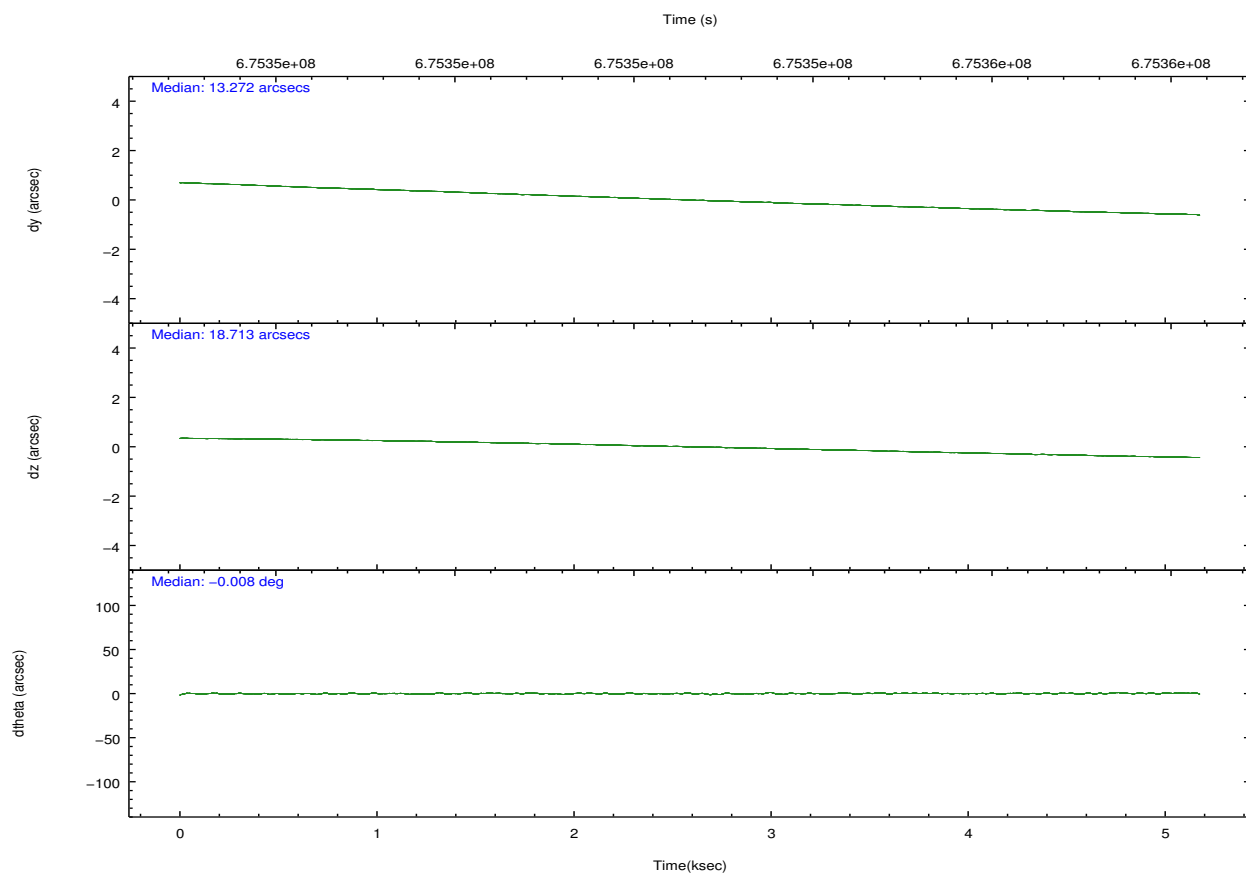
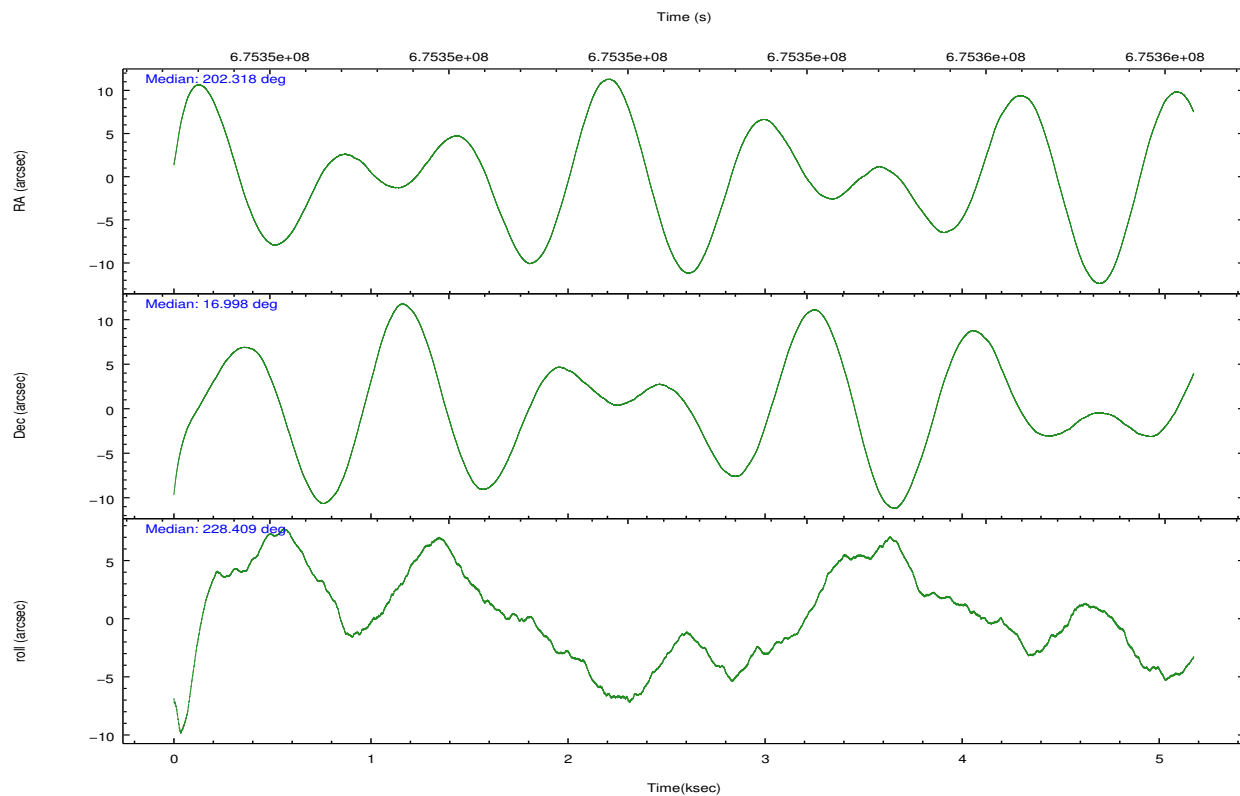
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	1320	1546	2865	1393
	3%	4%	6%	3%
grade 1 events	18	16	37	27
	0%	0%	0%	0%
grade 2 events	1047	1185	984	876
	2%	3%	2%	2%
grade 3 events	431	396	406	424
	1%	1%	0%	1%
grade 4 events	402	390	404	431
	1%	1%	0%	1%
grade 5 events	1599	1560	1517	1741
	4%	4%	3%	4%
grade 6 events	945	1131	832	846
	2%	2%	2%	2%
grade 7 events	30087	32164	34521	30576
	83%	83%	83%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	202.323077	202.3174880138608	Subarray requested	NONE	NONE
[deg] Pointing Dec	17.025659	16.99855834308935	Alternating exposures requested	N	N
[deg] Pointing Roll	228.198863	228.409171320596	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	675350877.184000	675349951.28197			
Observation start date	2019-05-27T13:26:48	2019-05-27T13:12:31			
[s] Observation end time (MET)	675355877.184000	675356588.15737			
Observation end date	2019-05-27T14:50:08	2019-05-27T15:03:08			
Read mode	TIMED	TIMED			

2.3 Aspect



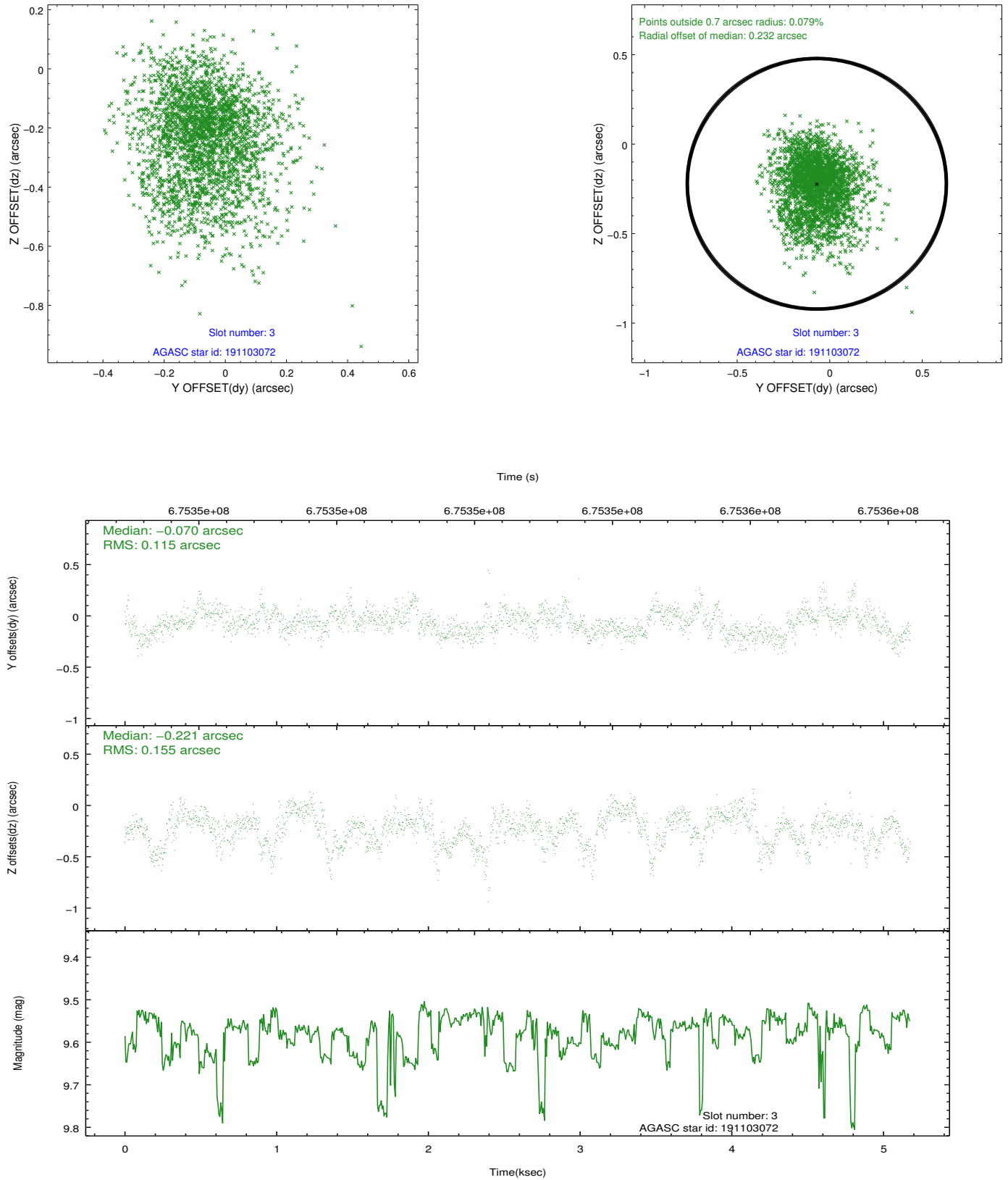


Slot Statistics

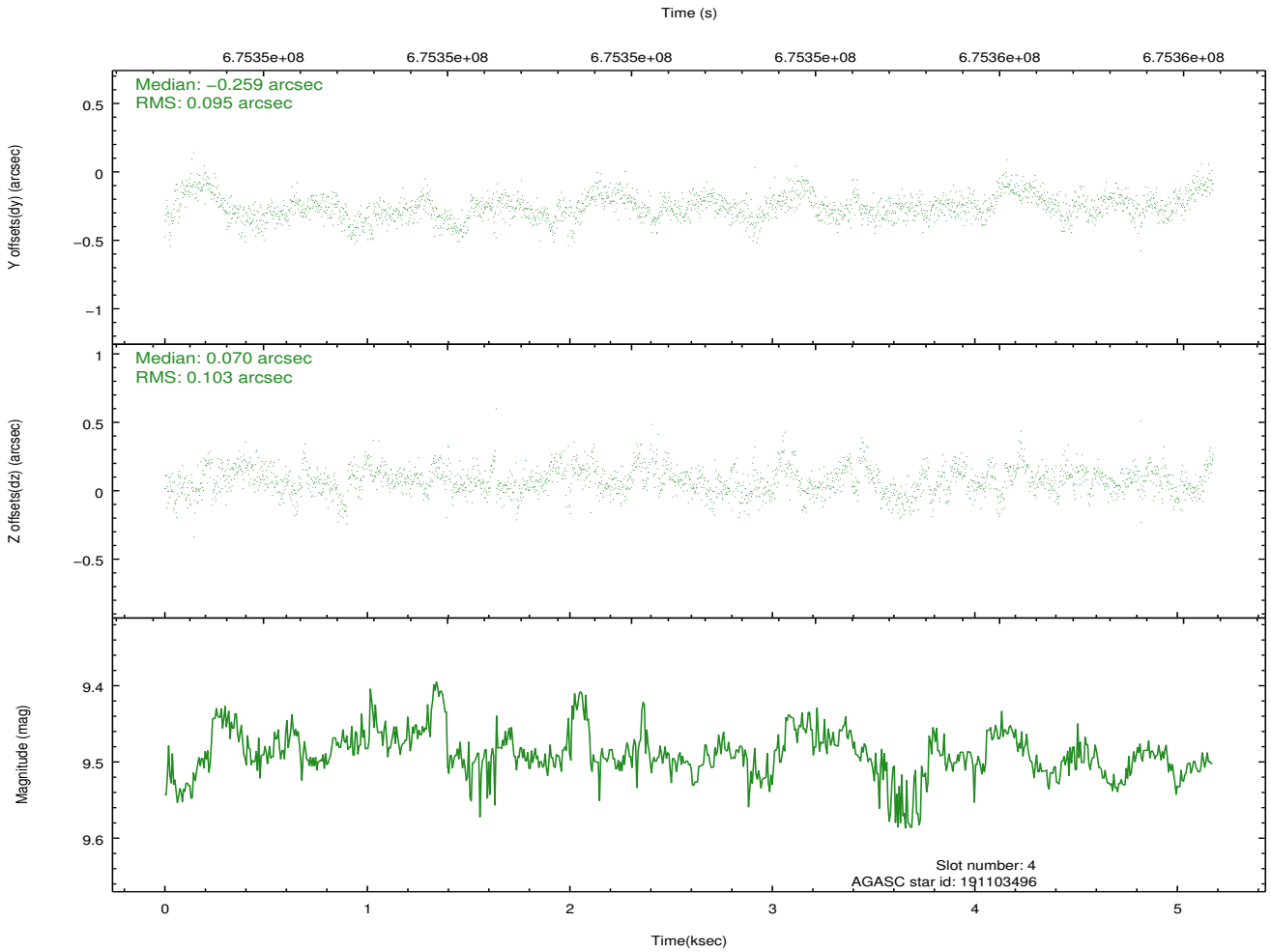
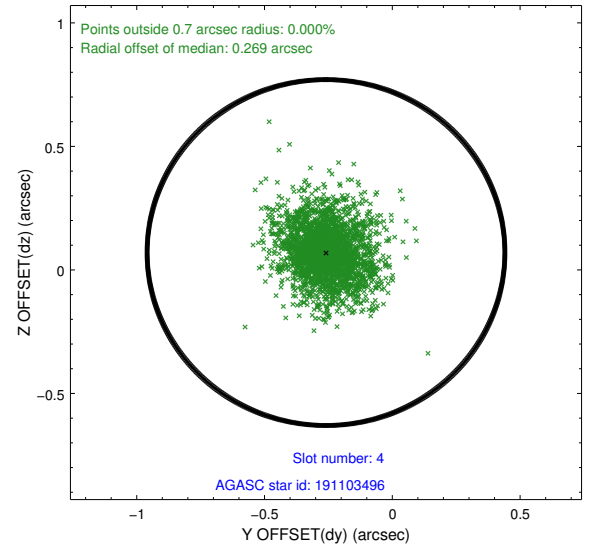
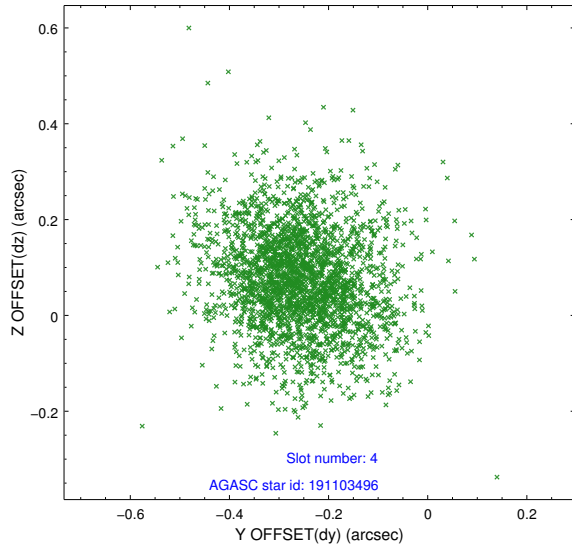
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-I-1	7.21	1263	1.000	0.070	-0.027	0.007	0.012	0.000000	0.000000	926.38	-842
1	FID		ACIS-I-5	7.21	1263	1.000	-0.475	-0.002	0.008	0.015	0.000000	0.000000	-1821.82	1054
2	FID		ACIS-I-6	7.21	1263	1.000	0.314	0.100	0.009	0.014	0.000000	0.000000	390.64	1700
3	GUIDE	used	191103072	9.58	2520	1.000	-0.070	-0.221	0.204	0.336	202.484479	16.693912	519.54	1209
4	GUIDE	used	191103496	9.49	2517	1.000	-0.259	0.070	0.147	0.250	202.613087	16.725488	138.79	1465
5	GUIDE	used	191107768	8.14	2524	1.000	0.246	-0.072	0.186	0.291	201.685100	16.948651	1668.00	-1456
6	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0
7	GUIDE	used	191242208	8.83	2524	1.000	0.076	0.250	0.120	0.202	202.960054	17.131294	-1745.49	1376

2.4 Star Slots

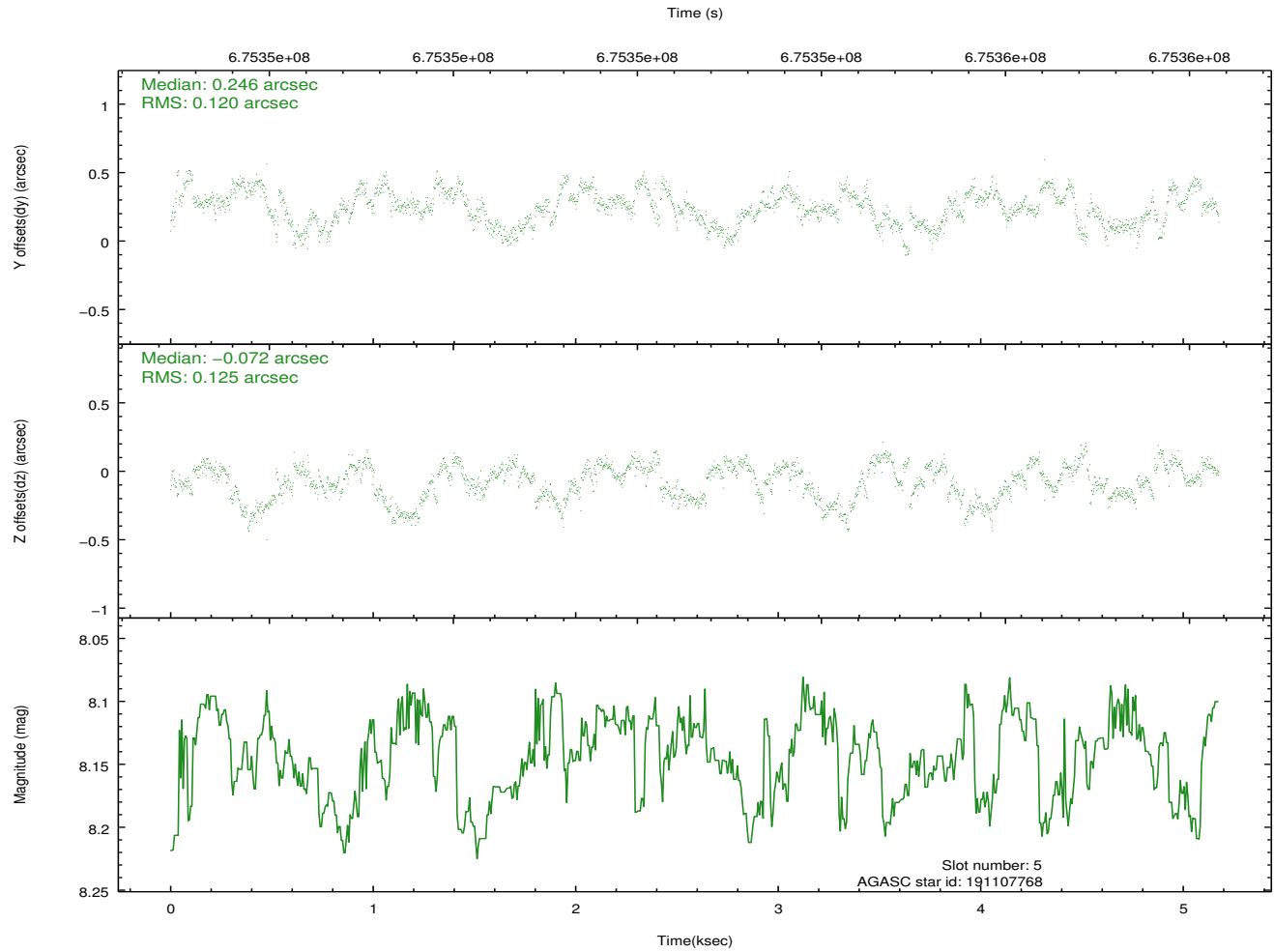
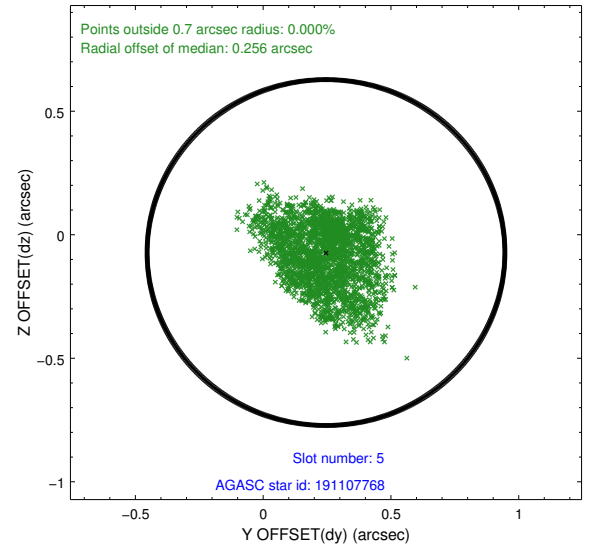
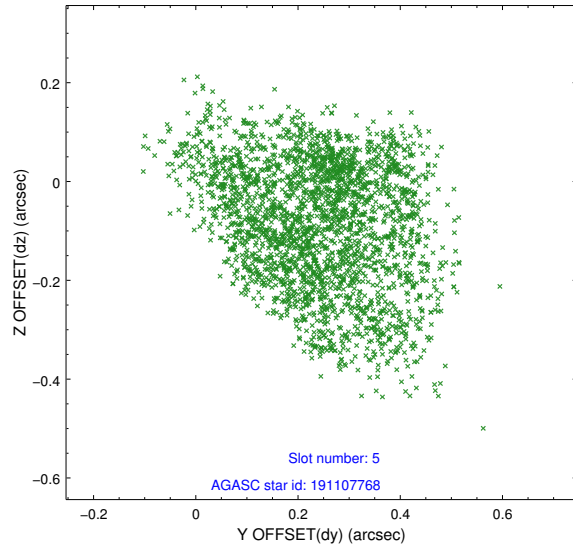
2.4.1 Slot 3



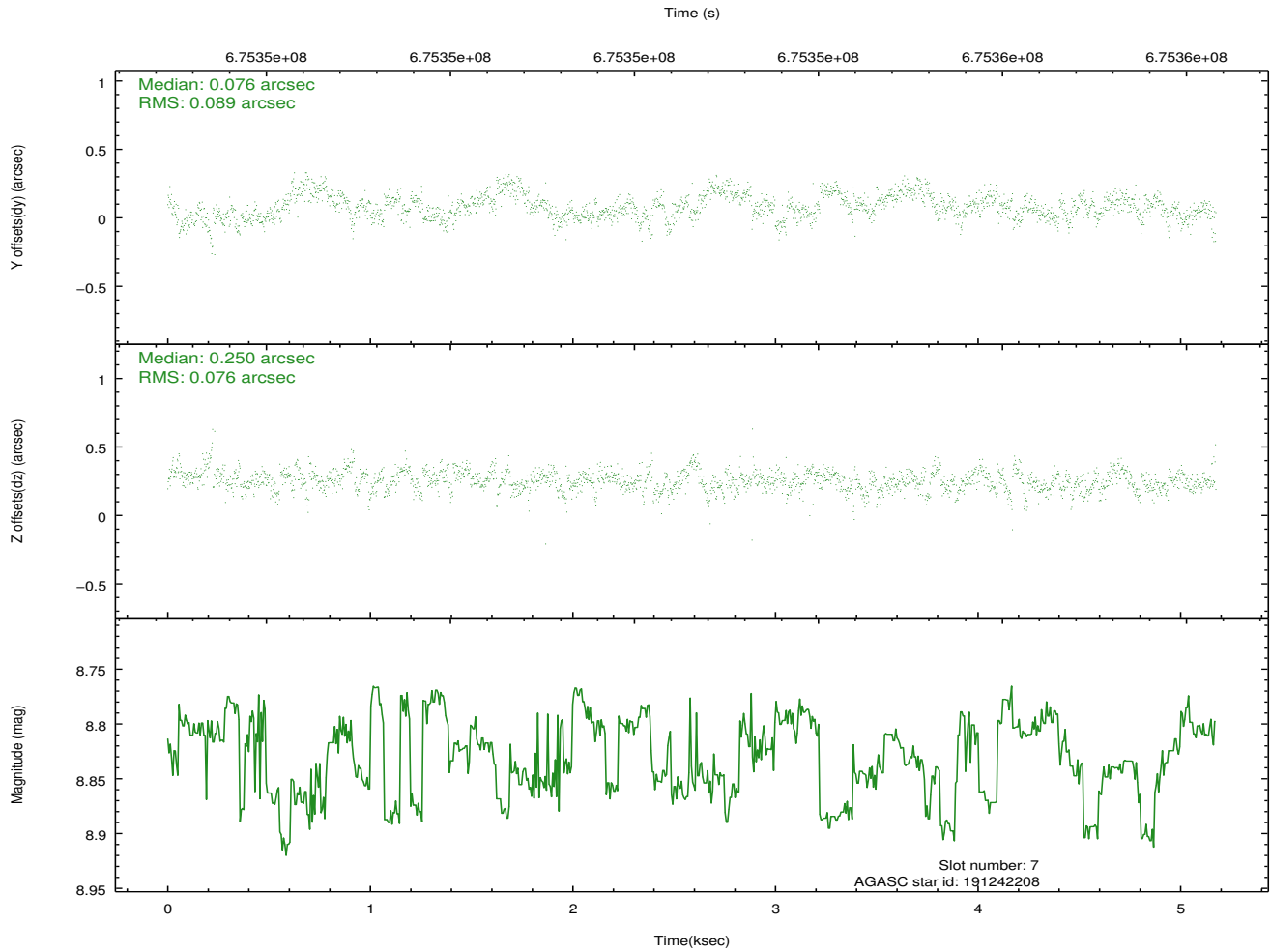
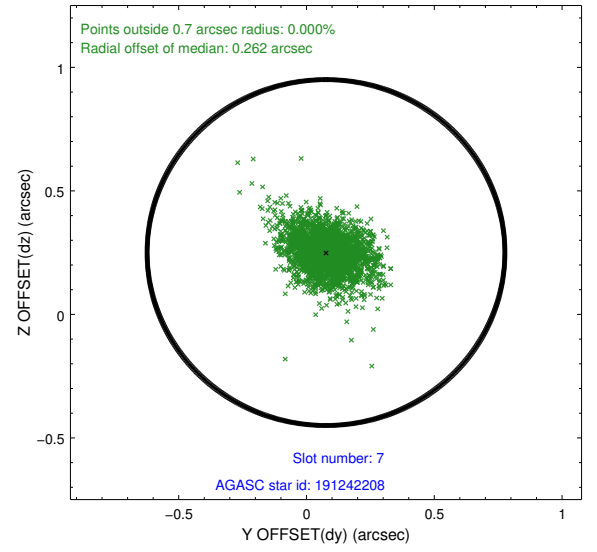
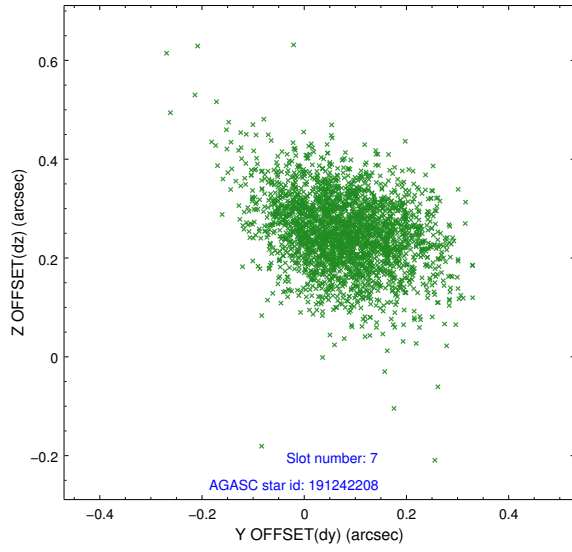
2.4.2 Slot 4



2.4.3 Slot 5

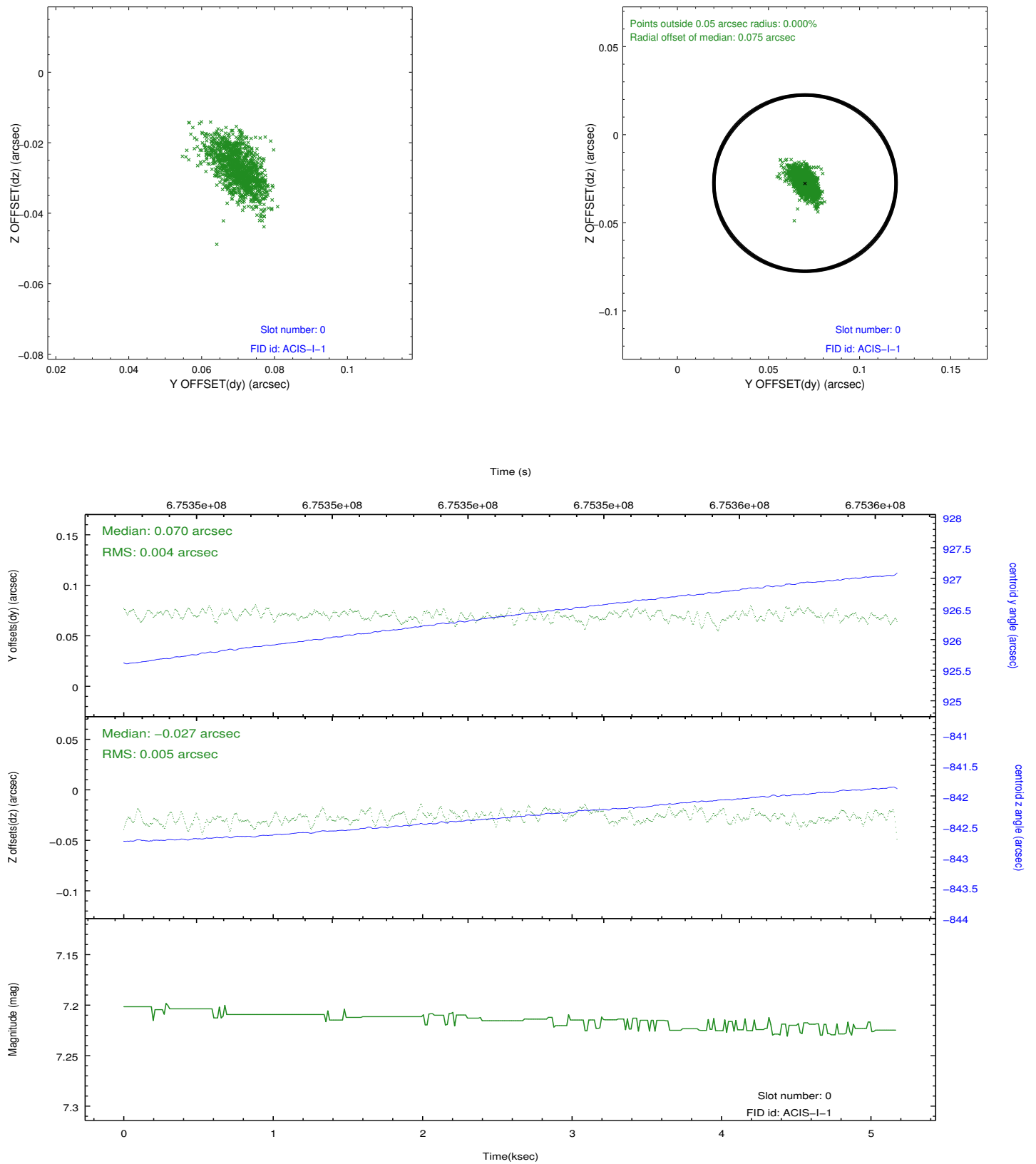


2.4.4 Slot 7

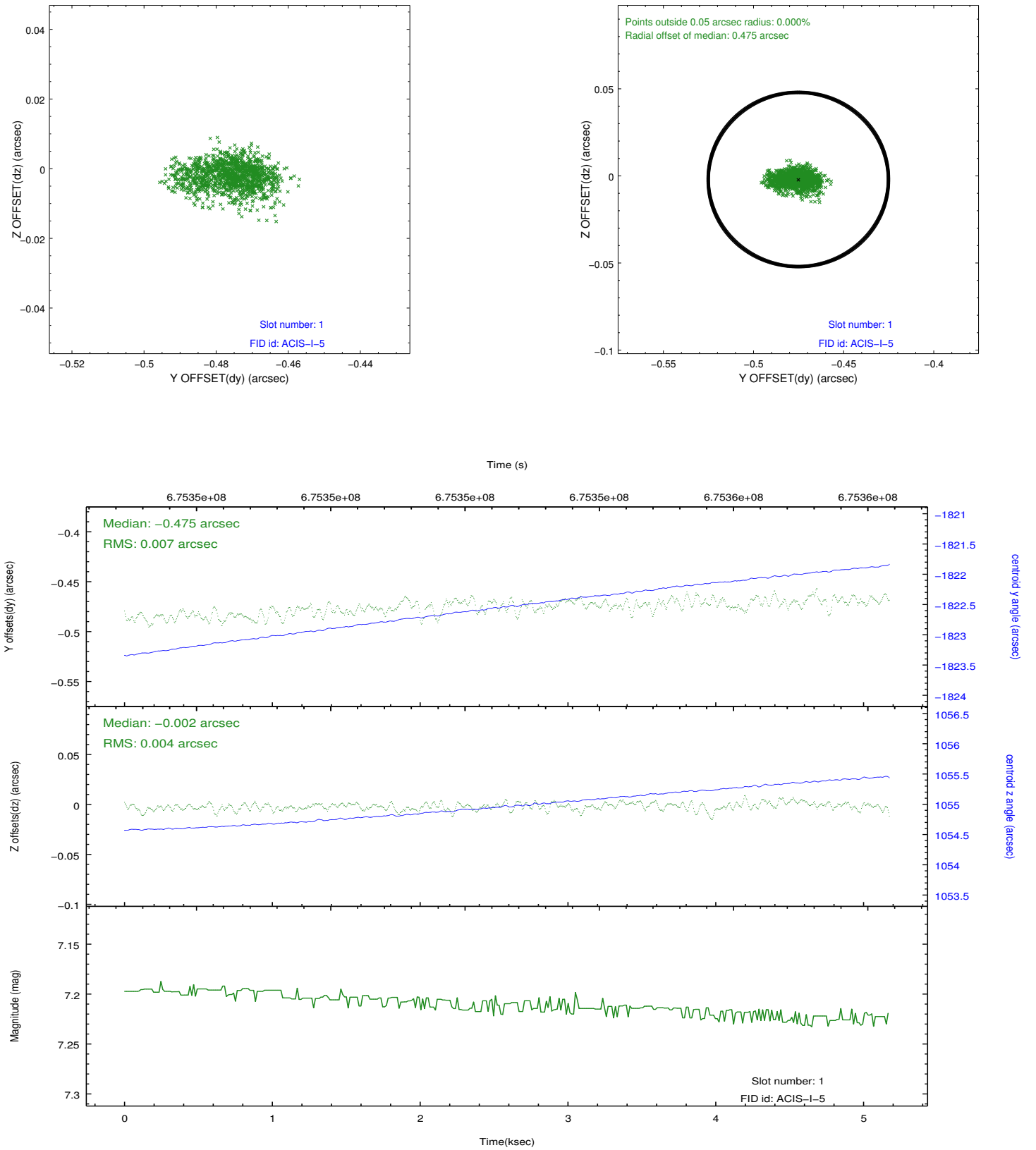


2.5 FID Slots

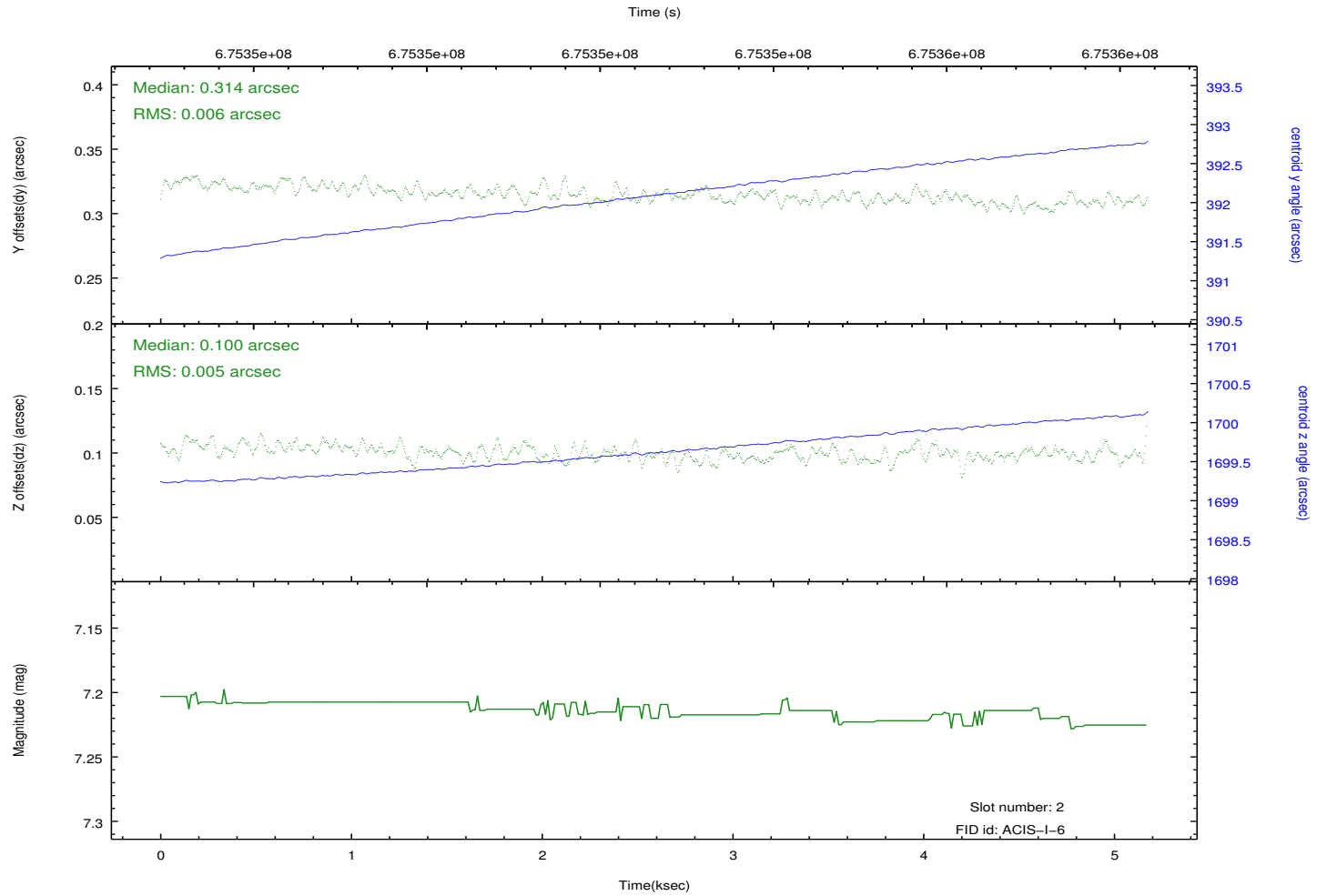
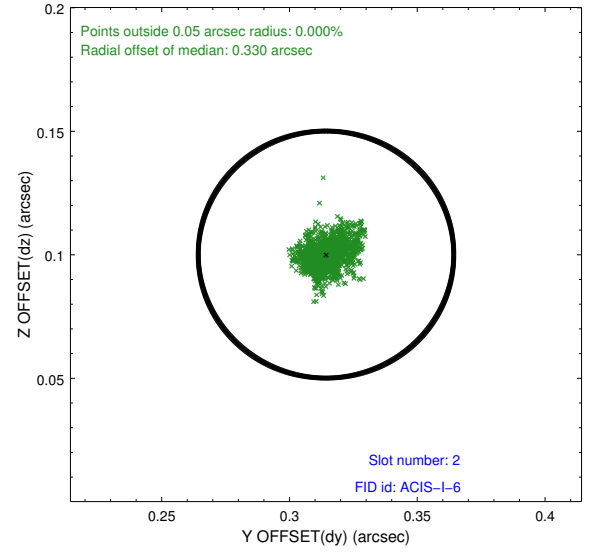
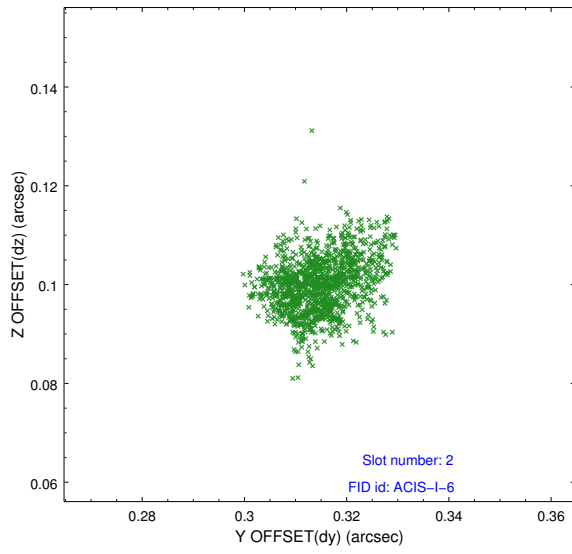
2.5.1 Slot 0



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)	2019.06.06
V&V Edition	2
V&V Disposition and Status	OK
V&V Charge Time	5.0778000391722

A.2 Comments

Joint proposal with HST.

A spatial region of the original bias map for CCD = 1 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. In this case, the bias map for CCD = 1 could not be improved because no suitable data at a compatible temperature and time range are available to use as replacement values. The bias map used in this processing is the original bias map telemetered with the observation.