

V&V Reference Report

L2 ASCDS Version : 10.5

Observation 18453 - L2 Version 2
Chandra X-Ray Center

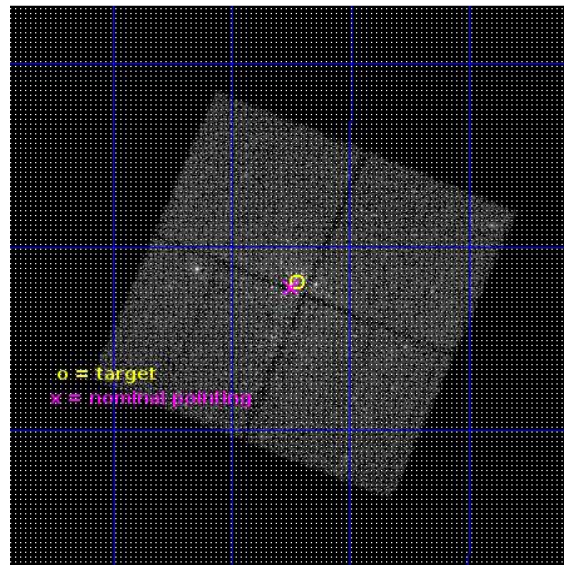
L2 Processing Date : Jul 8 2016

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1 Front

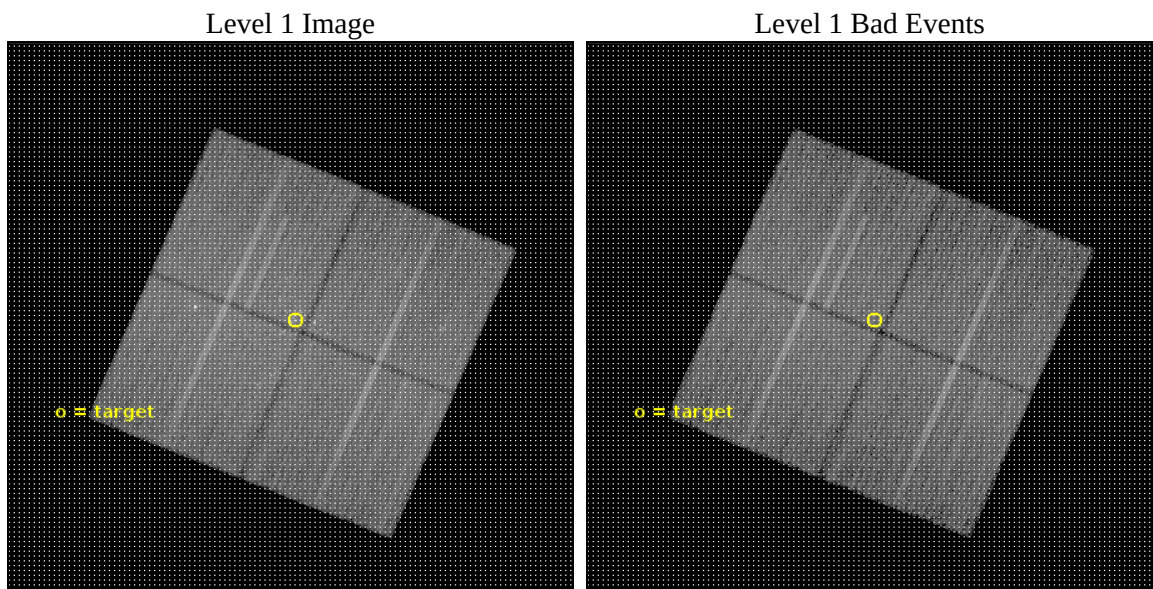
seq_num	201082	Sequence number
obs_id	18453	Observation id
title	NGC 6357: Is the stellar cluster formation rapid and coeval in the presence of very massive O stars?	Proposal title
observer	Gordon Garmire	Principal investigator
object	NGC6357_CS61	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	261.18125	Observer's specified target RA [deg]
dec_targ	-34.199139	Observer's specified target Dec [deg]
ra_nom	261.18697217329	Nominal RA [deg]
dec_nom	-34.203966454502	Nominal Dec [deg]
roll_nom	292.63326821697	Nominal Roll [deg]
revision	2	Processing version of data
ontime	42075.81399262	Sum of GTIs [s]
livetime	41526.062507042	Livetime [s]
ontime0	42072.54974246	Sum of GTIs [s]
ontime1	42075.731892705	Sum of GTIs [s]
ontime2	42078.91393292	Sum of GTIs [s]
ontime3	42075.81399262	Sum of GTIs [s]
l2events	128690	Number of level 2 events



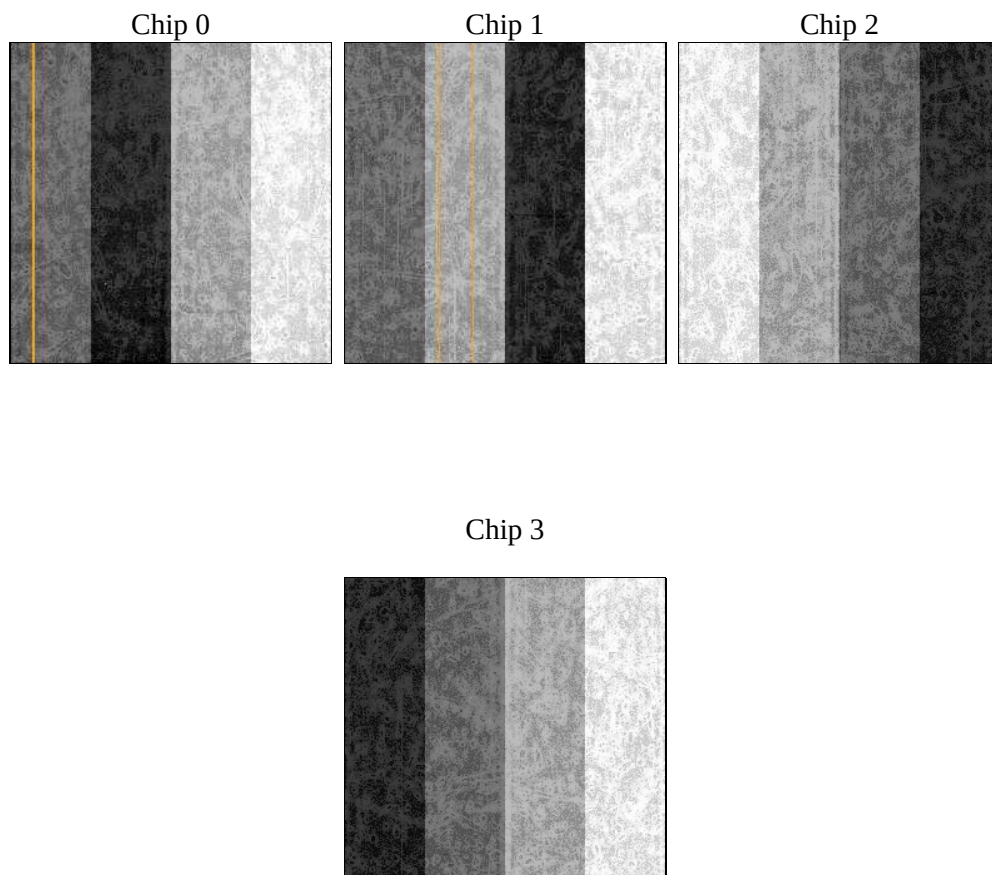
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	42000.000000	[s] Scheduled observation exposure time
ascdsver	10.5	Processing system revision	ontime	42075.81399262	Sum of GTIs [s]
caldsver	4.7.2	 	ontime0	42072.54974246	Sum of GTIs [s]
date	2016-07-08T15:07:59	Date and time of file creation	ontime1	42075.731892705	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	42078.91393292	Sum of GTIs [s]
			ontime3	42075.81399262	Sum of GTIs [s]
			l1events	1040140	Number of level 1 events

2.1.4 Events

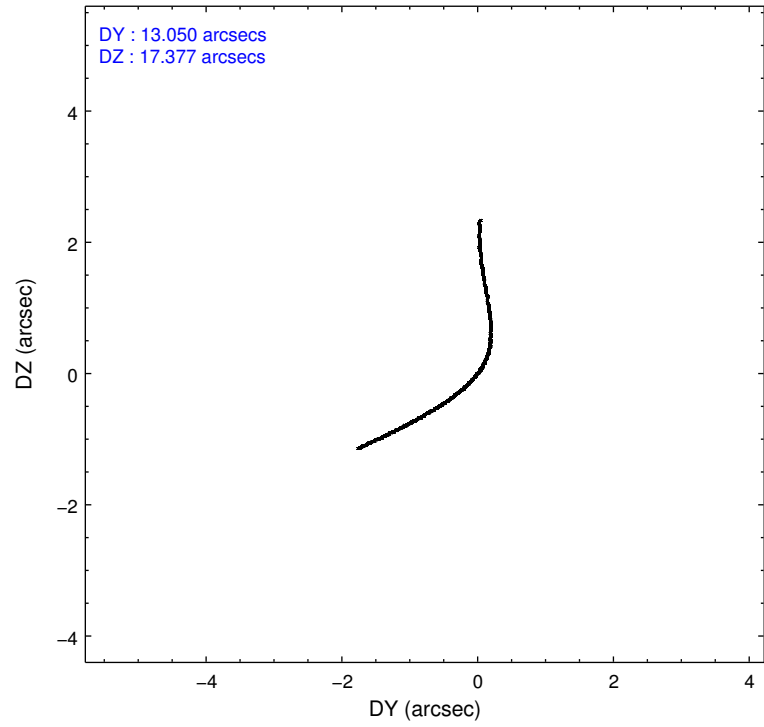
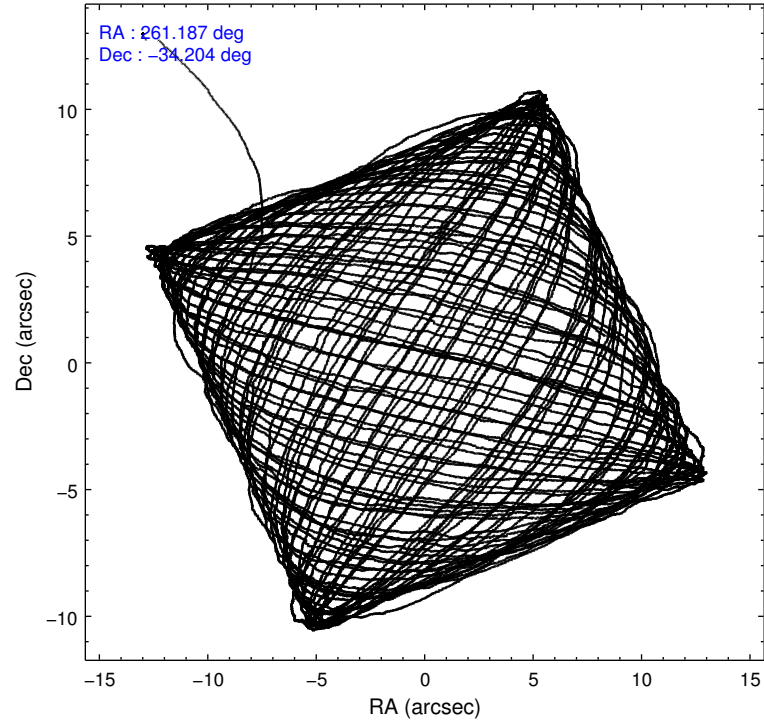
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	246741	243513	280504	269382
rejected events	211150	206454	238359	232778
rejected %	85%	84%	84%	86%

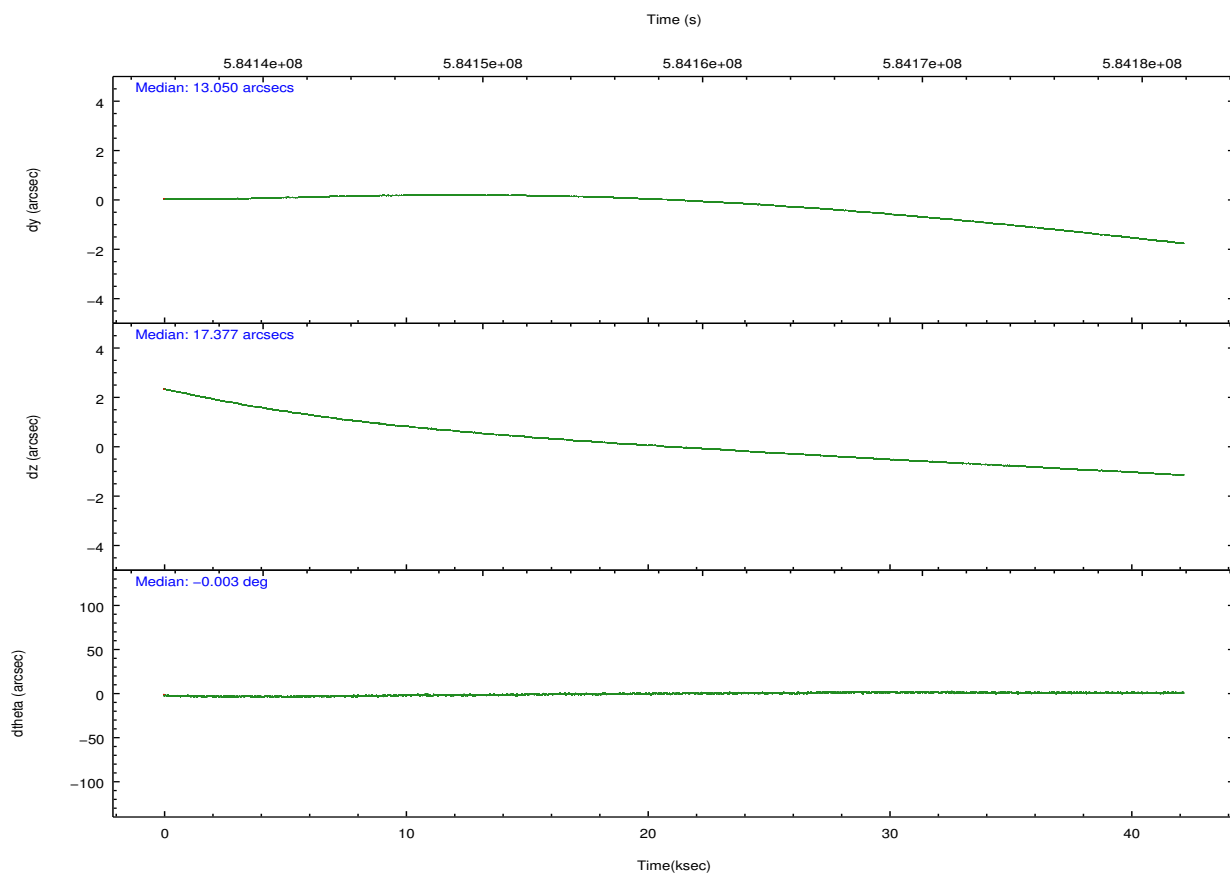
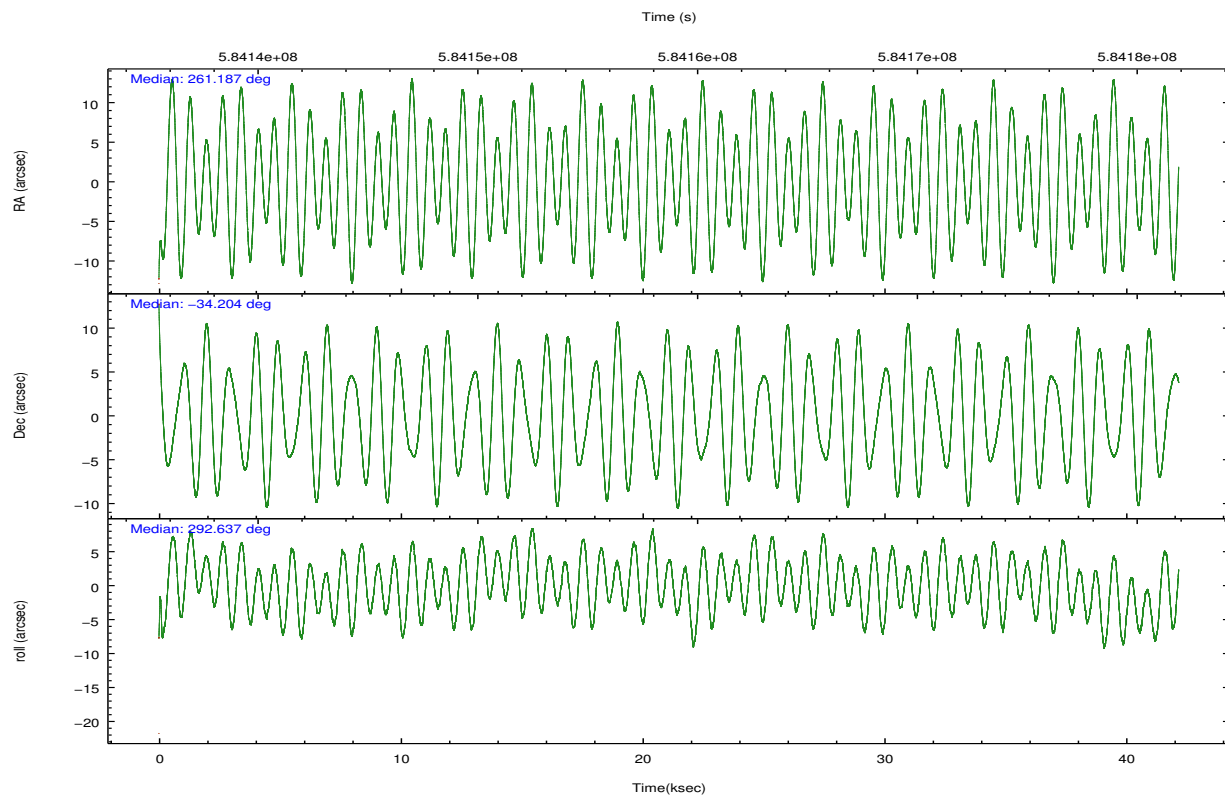
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	15738	15722	21857	17706
	6%	6%	7%	6%
grade 1 events	159	212	268	229
	0%	0%	0%	0%
grade 2 events	7898	8125	8343	7083
	3%	3%	2%	2%
grade 3 events	3180	3262	3276	3132
	1%	1%	1%	1%
grade 4 events	3088	3175	3256	3134
	1%	1%	1%	1%
grade 5 events	9264	10069	8689	11033
	3%	4%	3%	4%
grade 6 events	5692	6783	5427	5551
	2%	2%	1%	2%
grade 7 events	201722	196165	229388	221514
	81%	80%	81%	82%

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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	261.160396	261.1869721732872	Subarray requested	NONE	NONE
[deg] Pointing Dec	-34.187296	-34.20396645450232	Alternating exposures requested	N	N
[deg] Pointing Roll	292.409641	292.633268216968	[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)	584137745.184000	584136440.7092			
Observation start date	2016-07-05T20:27:57	2016-07-05T20:07:20			
[s] Observation end time (MET)	584179745.184000	584180696.62424			
Observation end date	2016-07-06T08:07:57	2016-07-06T08:24:56			
Read mode	TIMED	TIMED			

2.3 Aspect



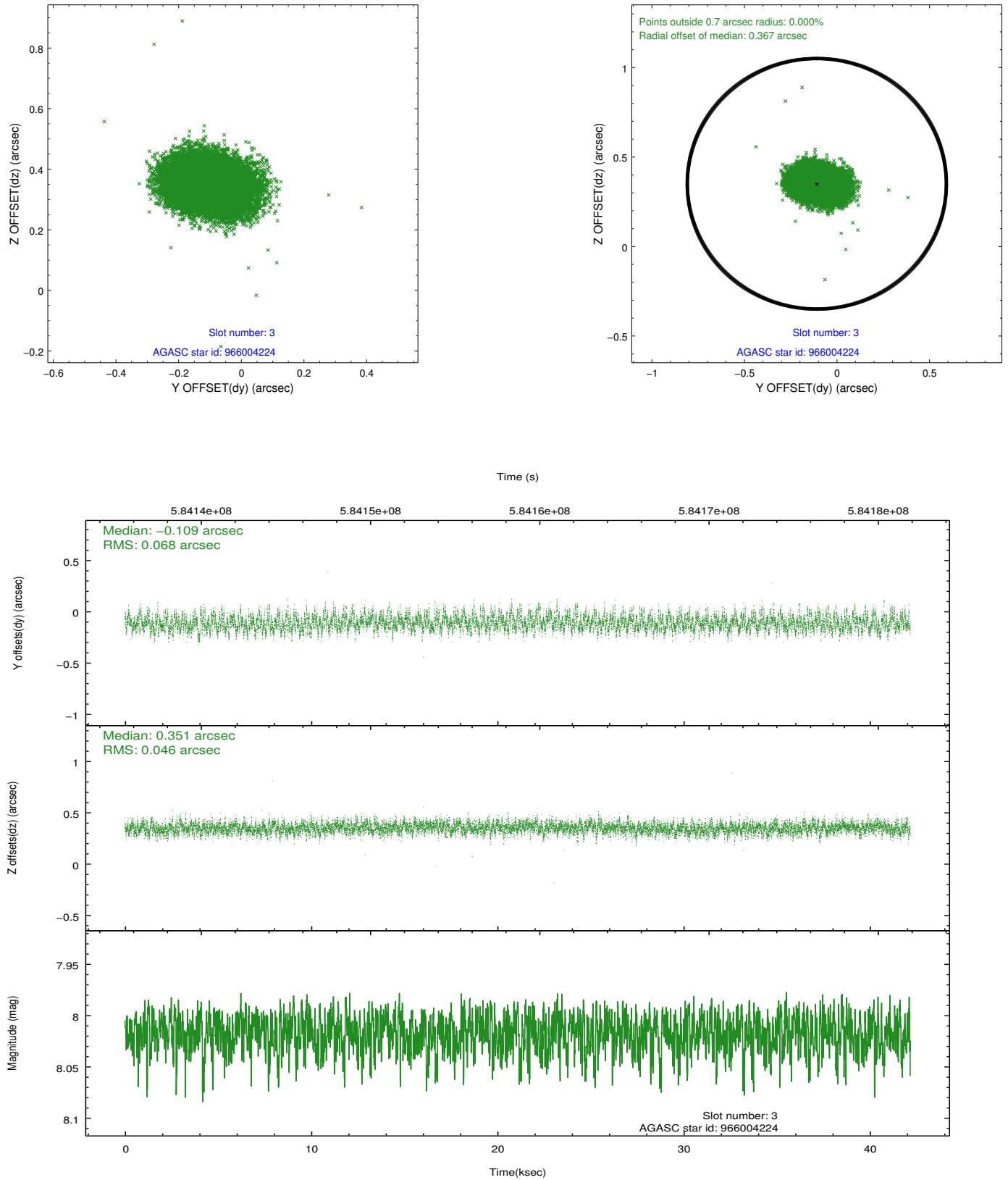


Slot Statistics

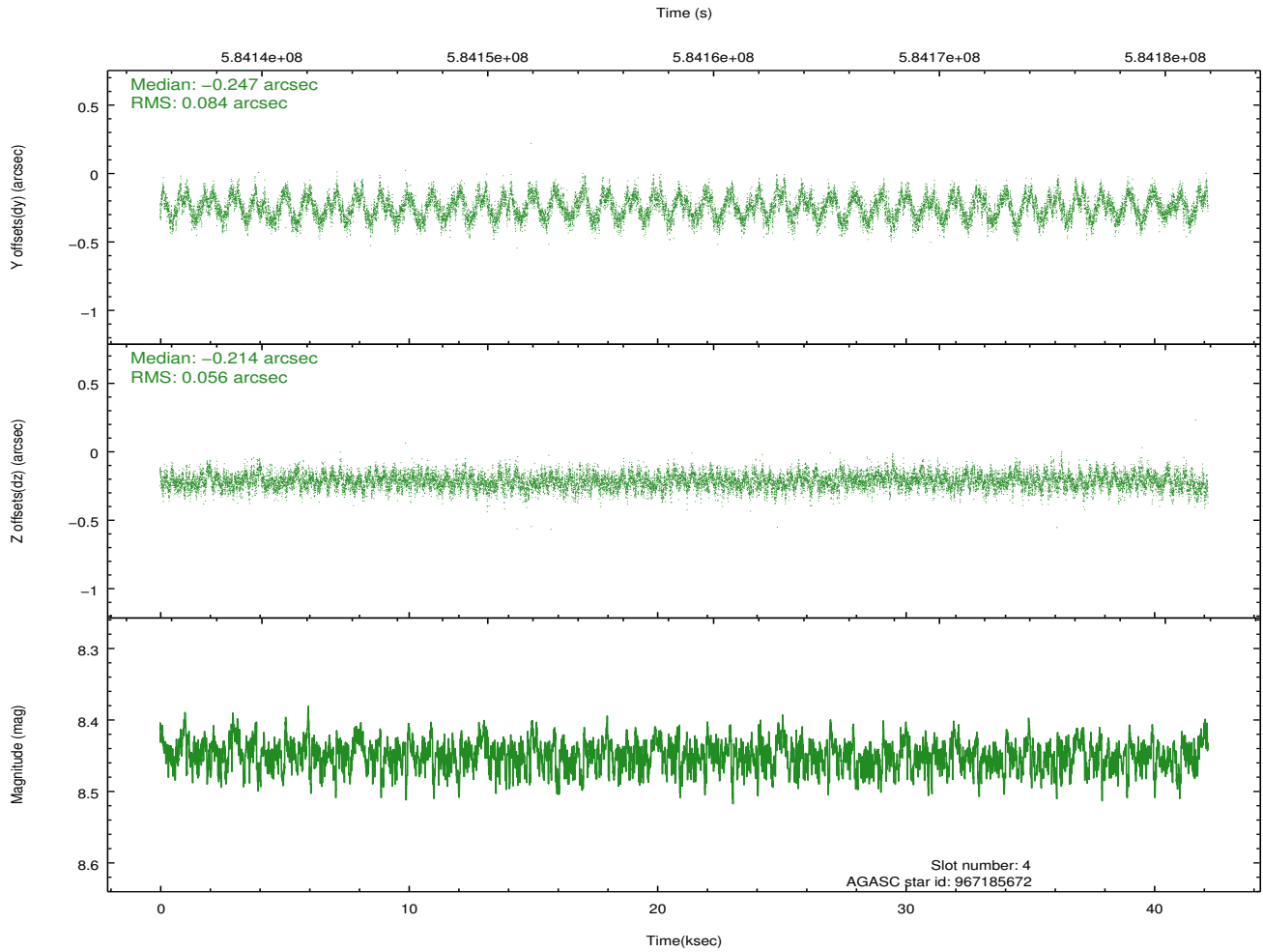
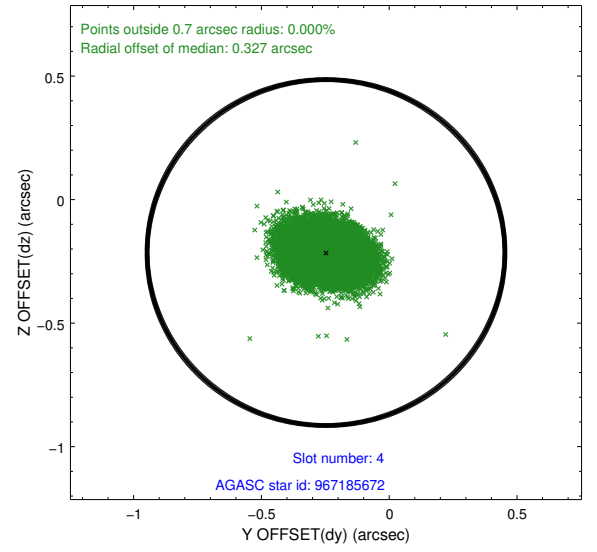
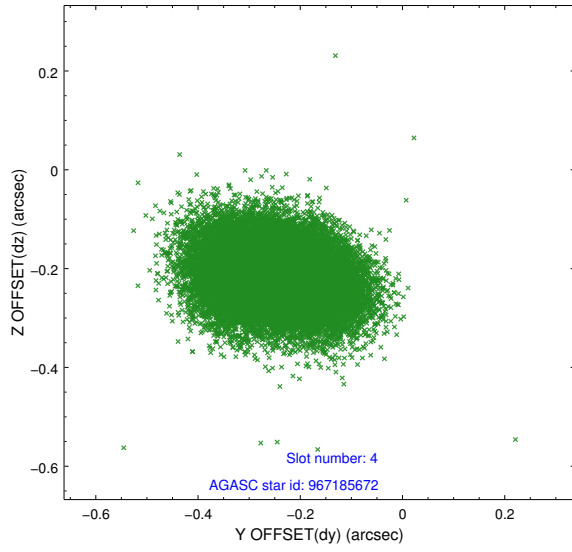
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.25	10285	0.064	-0.028	0.044	0.054	0.000000	0.000000	926.88	-841.21
1	FID		ACIS-I-5	7.26	10286	-0.292	0.045	0.011	0.018	0.000000	0.000000	-1821.63	1056.28
2	FID		ACIS-I-6	7.26	10286	0.135	0.054	0.035	0.046	0.000000	0.000000	392.42	1700.86
3	GUIDE	used	966004224	8.02	20569	-0.109	0.351	0.086	0.142	260.824329	-33.819793	-1604.39	-425.07
4	GUIDE	used	967185672	8.45	20566	-0.247	-0.214	0.109	0.171	261.333798	-33.528926	-1992.11	1384.39
5	GUIDE	used	967706432	6.70	20570	0.575	-0.265	0.078	0.131	261.306065	-34.429958	973.77	66.43
6	GUIDE	used	967708760	7.40	20503	-0.219	0.128	0.101	0.168	261.328301	-34.249213	397.43	376.93
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

2.4 Star Slots

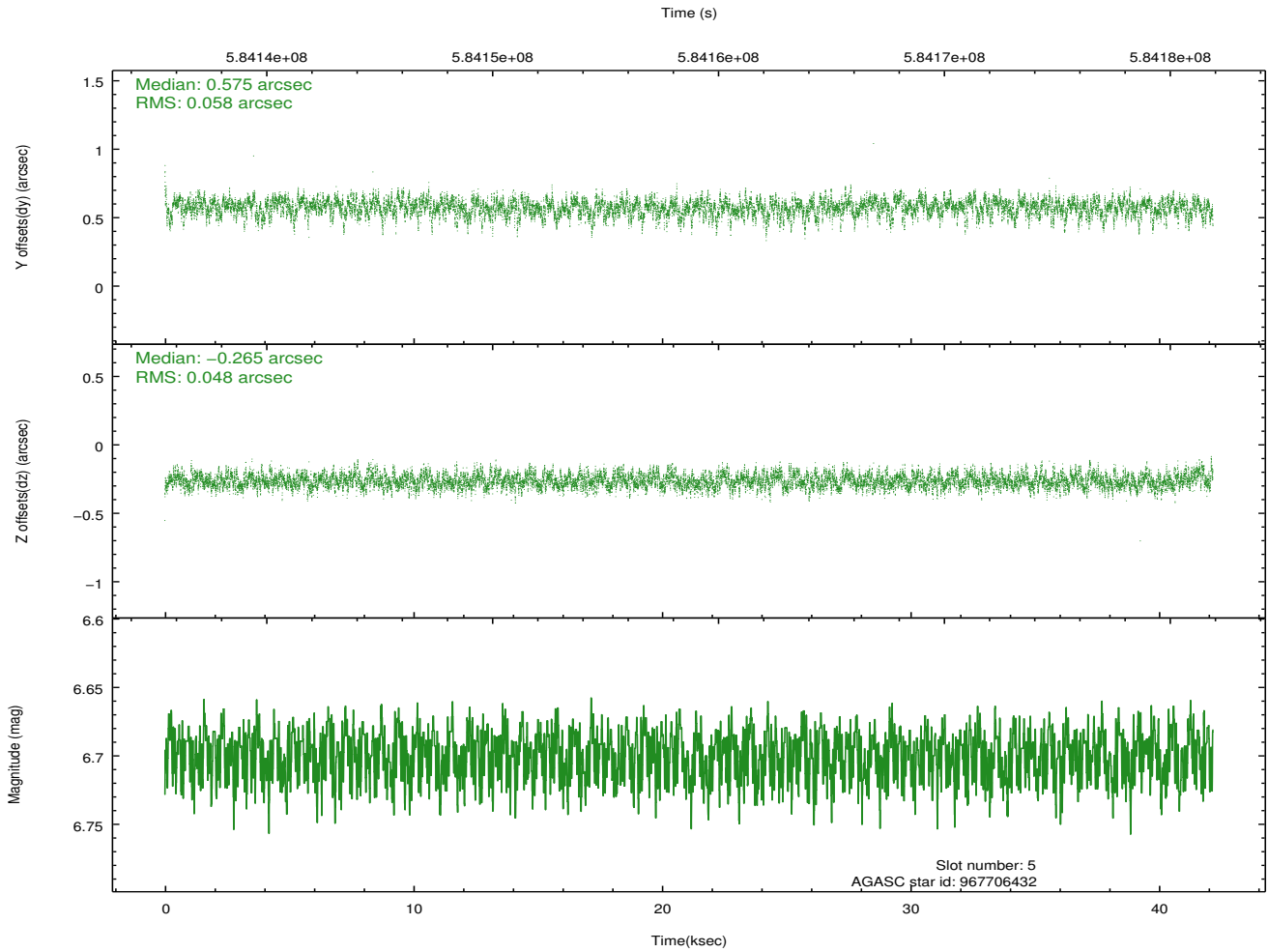
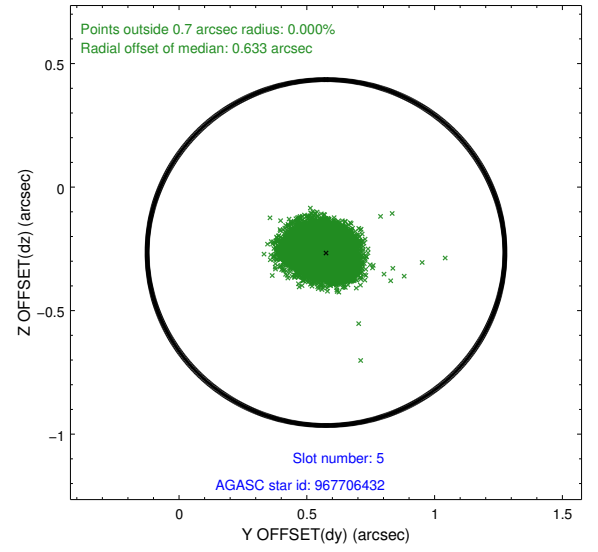
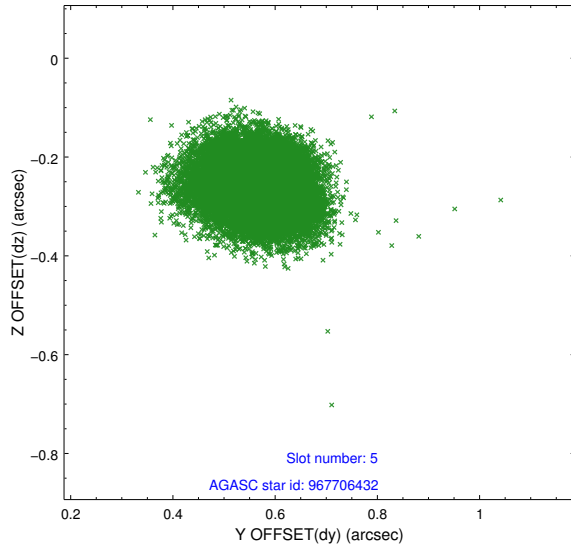
2.4.1 Slot 3



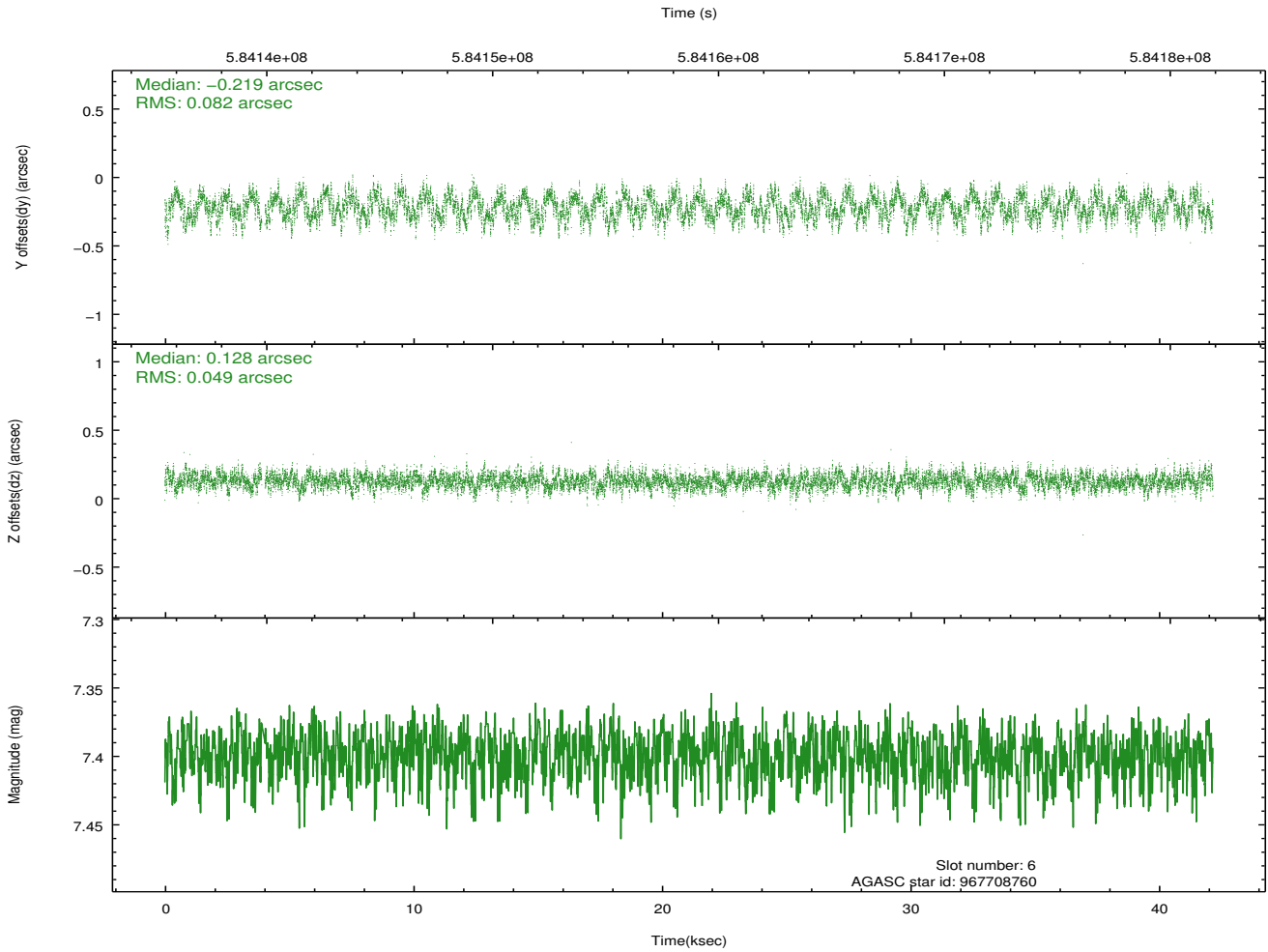
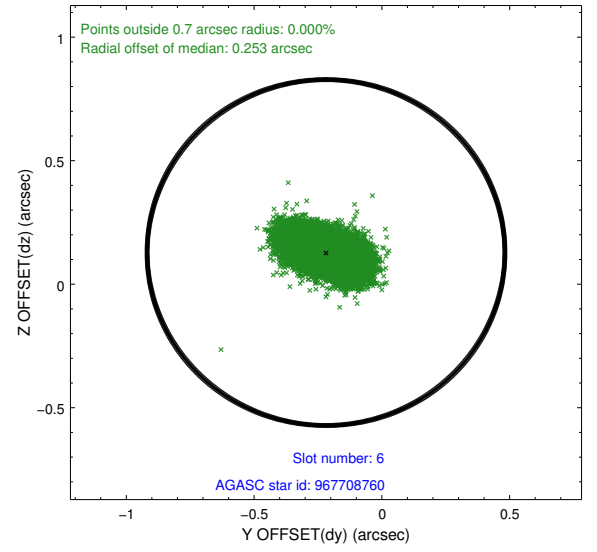
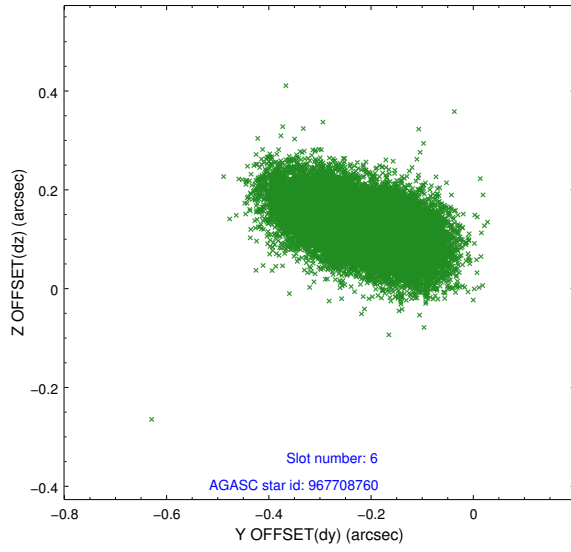
2.4.2 Slot 4



2.4.3 Slot 5

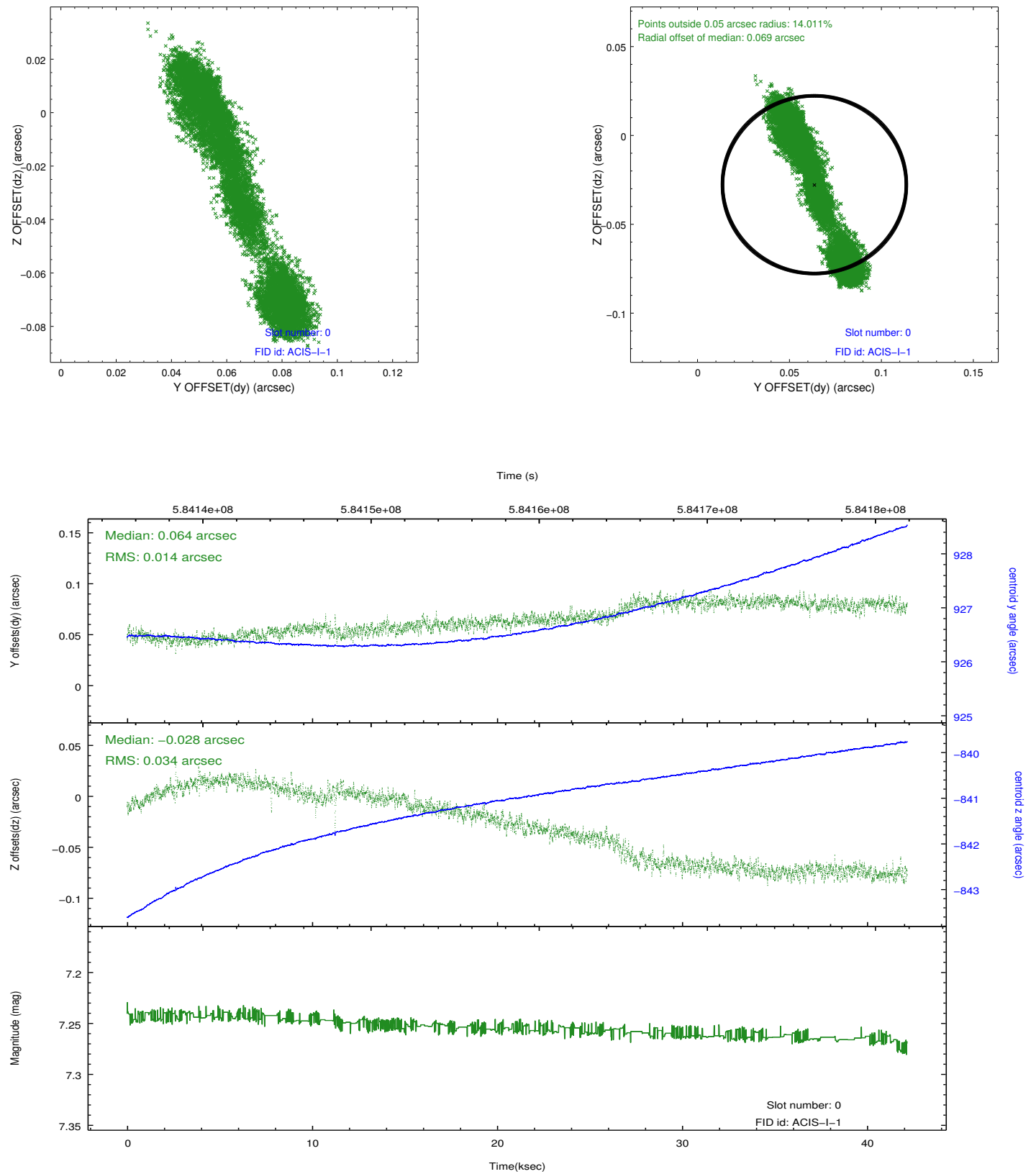


2.4.4 Slot 6

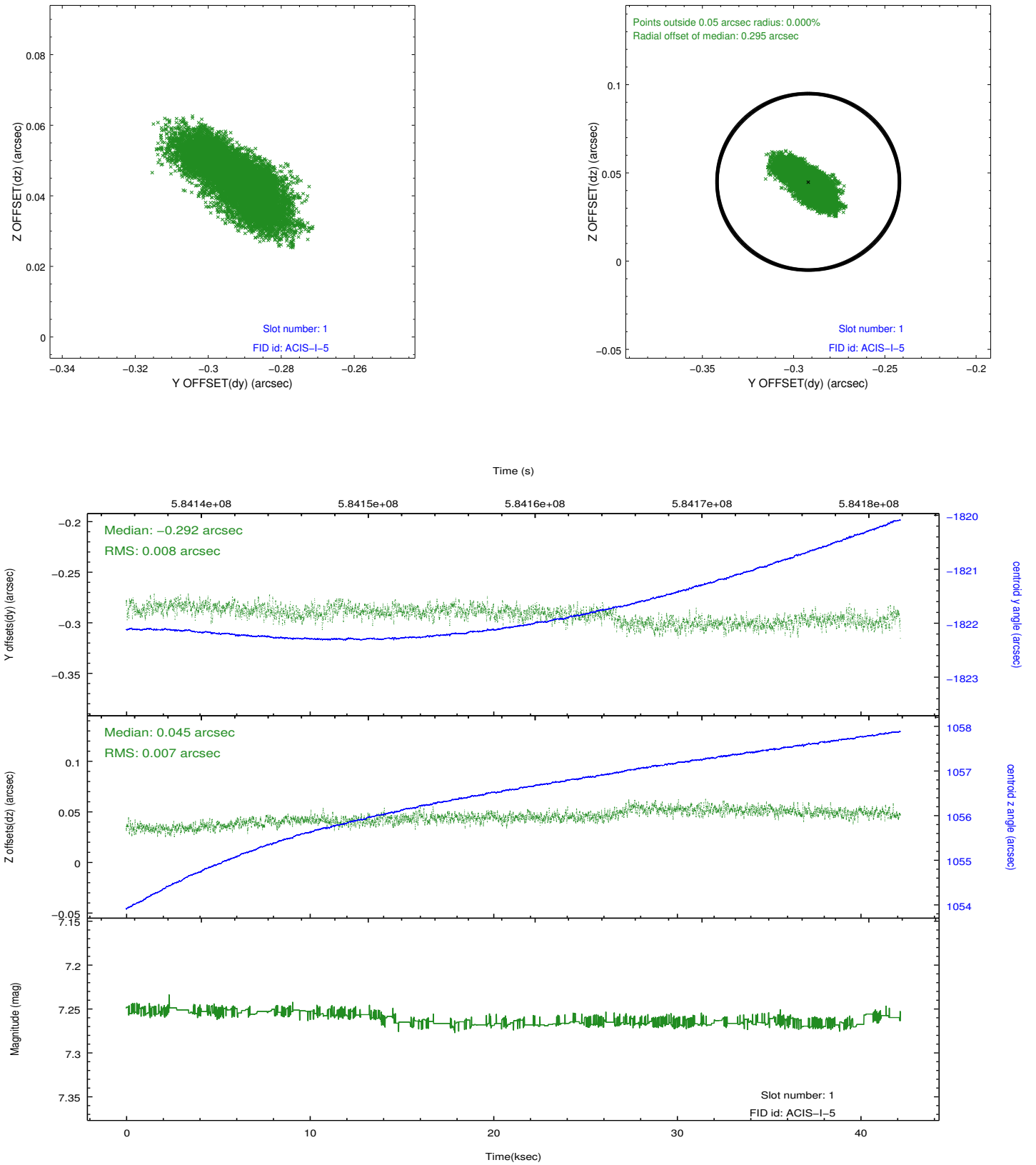


2.5 FID Slots

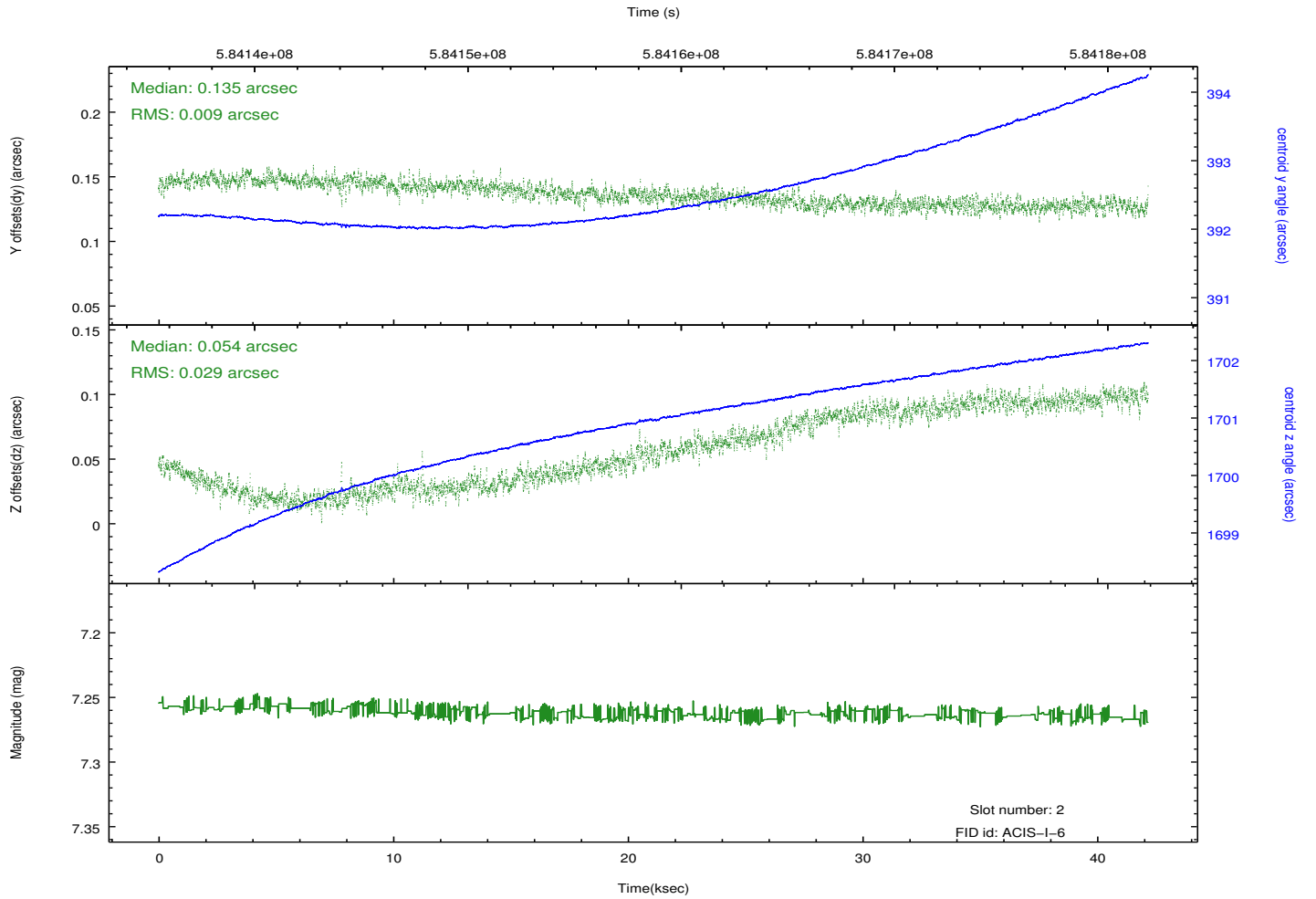
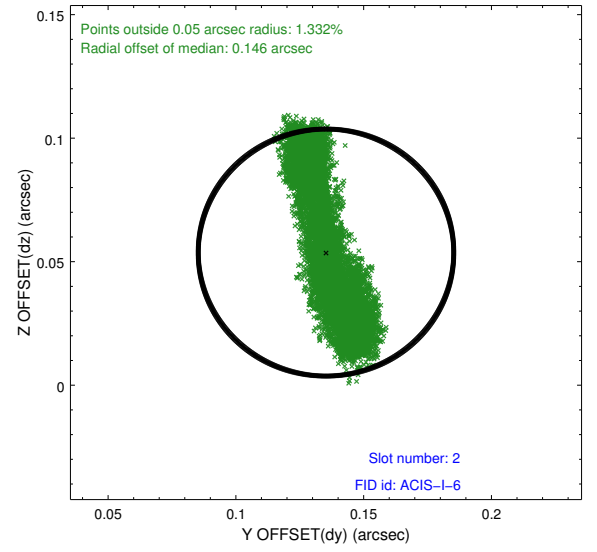
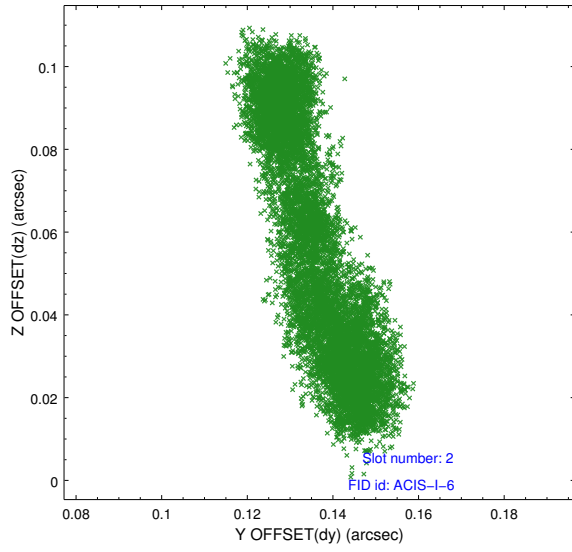
2.5.1 Slot 0



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)	2016.07.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	42.07581399262

A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.

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:

(261.13809,-34.07018), (261.13490,-34.07127), (261.18475,-34.17031),
(261.18795,-34.16922).