

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 12863 - L2 Version 2
Chandra X-Ray Center

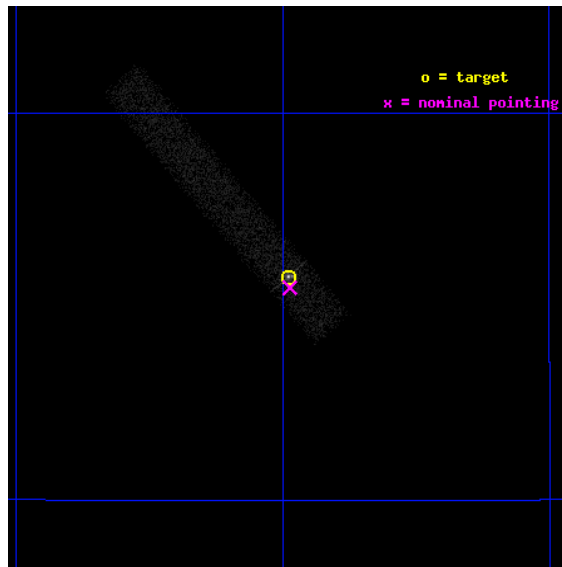
L2 Processing Date : Feb 8 2012

Contents

1	Front	2
2	OBI	3
2.1	OBI	3
2.1.1	Images	3
2.1.2	Bias	3
2.1.3	Parameters	4
2.1.4	Events	4
2.2	Compared Parameters	5
2.3	Aspect	6
2.4	Star Slots	9
2.4.1	Slot 3	9
2.4.2	Slot 4	10
2.4.3	Slot 5	11
2.4.4	Slot 6	12
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

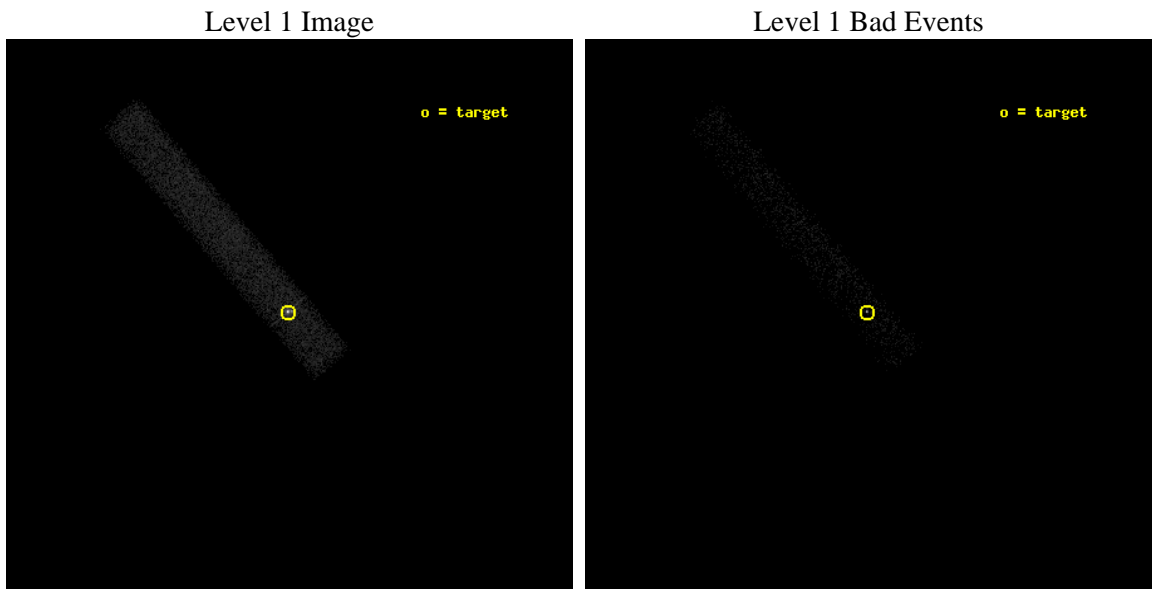
seq_num	702496	Sequence number
obs_id	12863	Observation id
title	Chandra Survey of Hard X-ray Selected Merging AGN Hosts	Proposal t
observer	Dr. Richard Mushotzky	Principal investigator
object	Mrk 0739E	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	174.1225	Observer's specified target RA [deg]
dec_targ	21.596111	Observer's specified target Dec [deg]
ra_nom	174.12172980351	Nominal RA [deg]
dec_nom	21.591310286654	Nominal Dec [deg]
roll_nom	229.33401677134	Nominal Roll [deg]
revision	2	Processing version of data
ontime	13009.455080211	Sum of GTIs [s]
livetime	11798.889062408	Livetime [s]
ontime7	13009.455080211	Sum of GTIs [s]
l2events	18446	Number of level 2 events



2 OBI

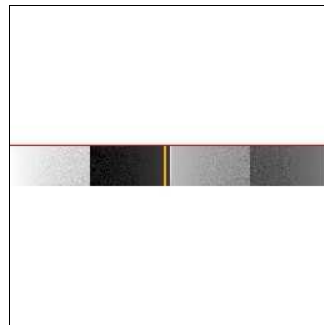
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	13000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	13009.455080211	Sum of GTIs [s]
caldbver	4.4.7	 	ontime7	13009.455080211	Sum of GTIs [s]
date	2012-02-08T21:58:54	Date and time of file creation	l1events	26761	Number of level 1 events
revision	2	Processing version of data			

2.1.4 Events

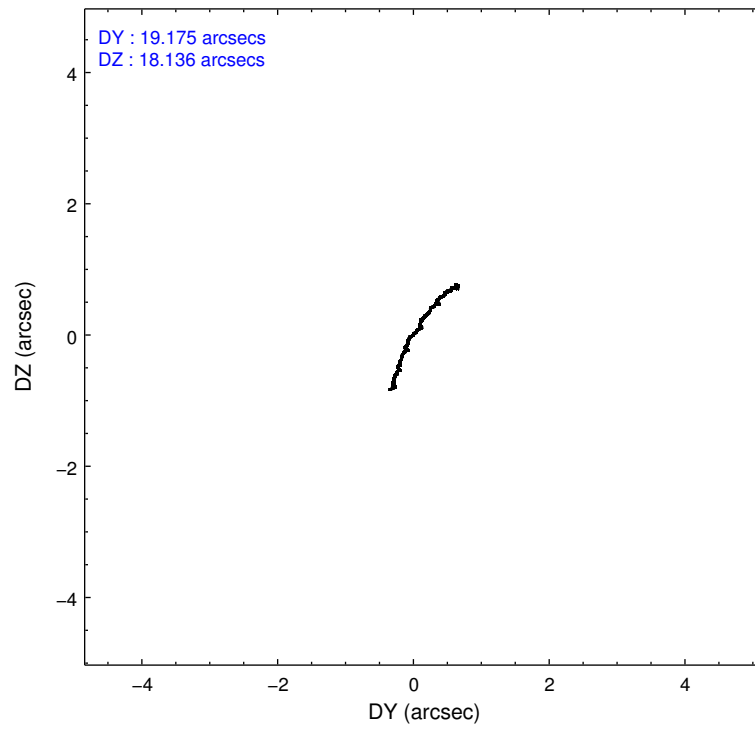
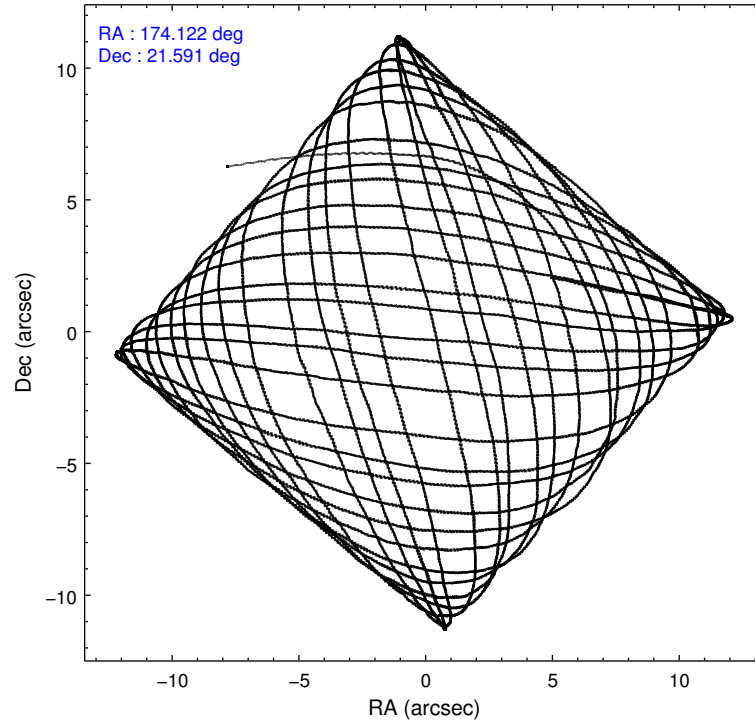
	ccd 7
level 1 events	26761
rejected events	7953
rejected %	29%

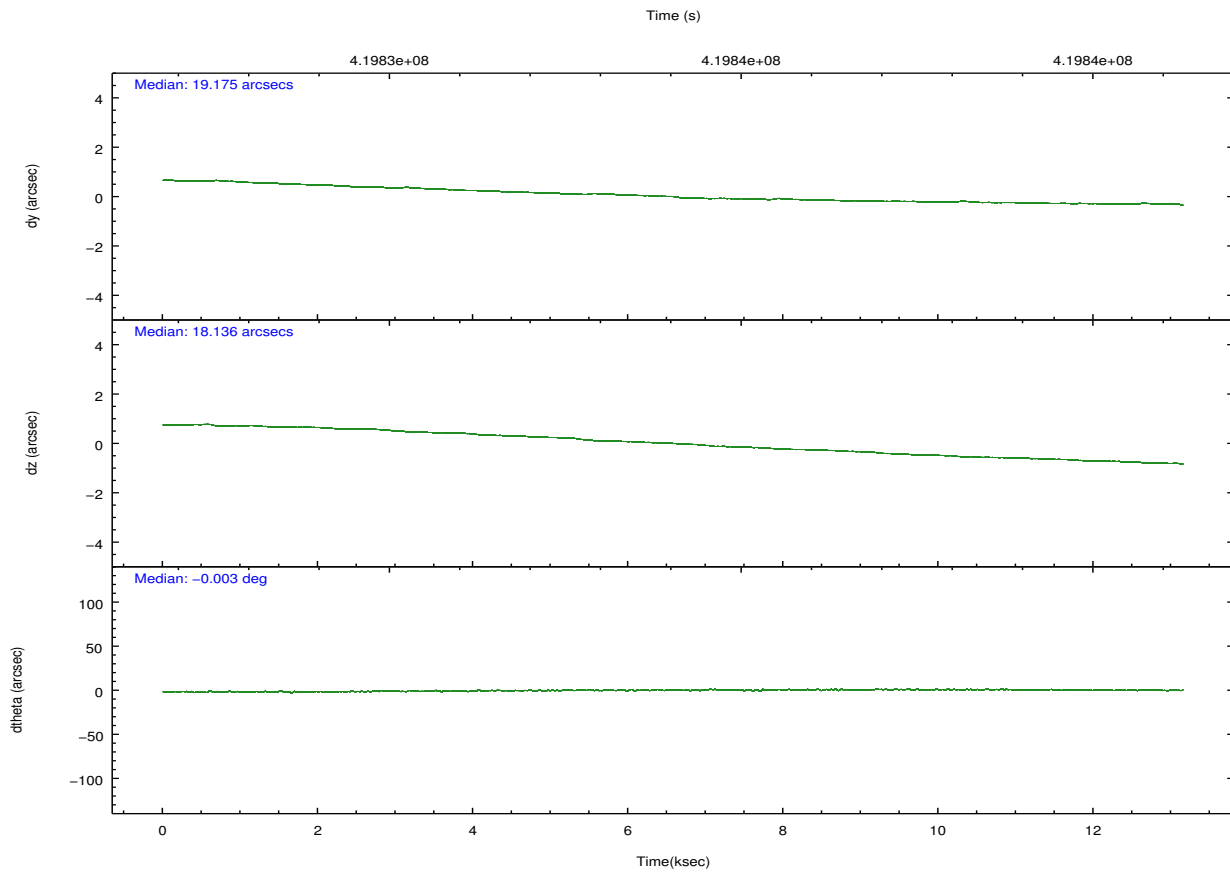
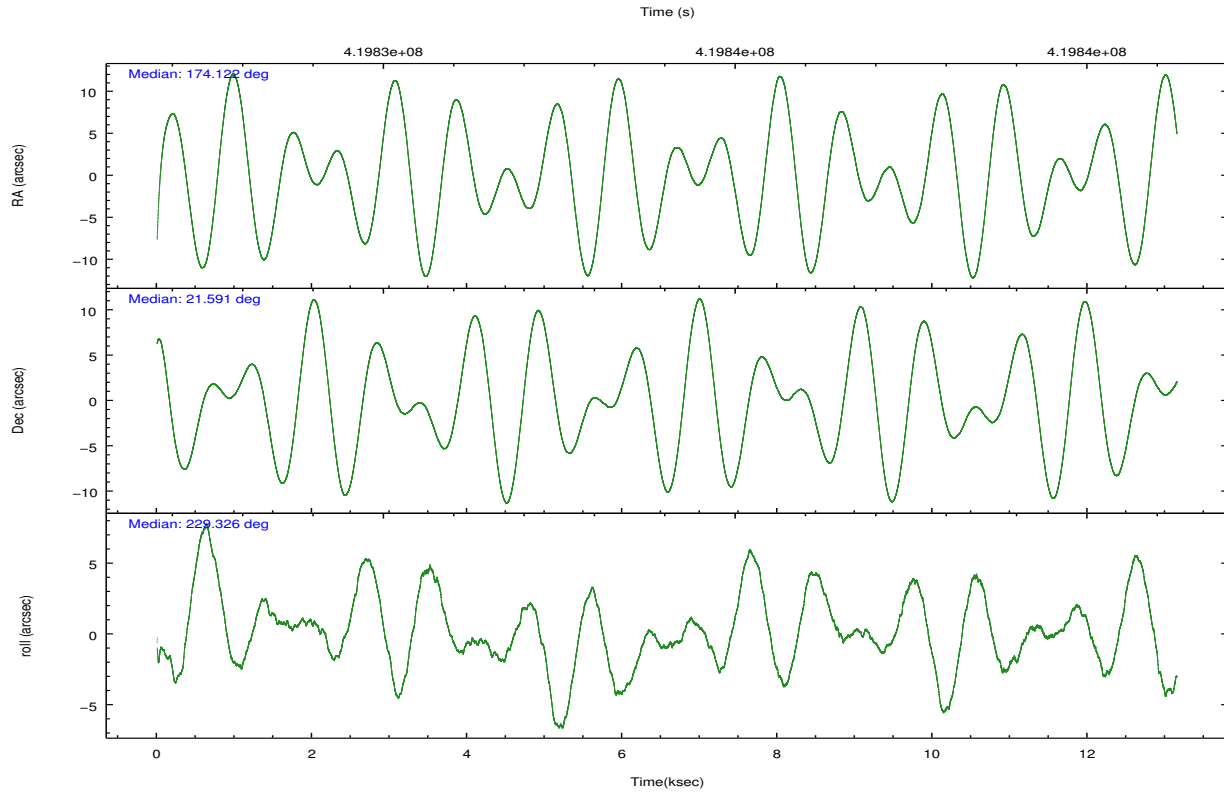
	ccd 7
grade 0 events	3666
	13%
grade 1 events	108
	0%
grade 2 events	4301
	16%
grade 3 events	2343
	8%
grade 4 events	2282
	8%
grade 5 events	1911
	7%
grade 6 events	6218
	23%
grade 7 events	5932
	22%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	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	174.126731	174.1217298035053	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	21.618257	21.59131028665436	Subarray start row	449	449
[deg] Pointing Roll	229.175543	229.334016771343	Subarray row count	128	128
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	0.4
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	419827617.184000	419826481.31957			
Observation start date	2011-04-22T02:45:51	2011-04-22T02:28:01			
[s] Observation end time (MET)	419840617.184000	419841190.07033			
Observation end date	2011-04-22T06:22:31	2011-04-22T06:33:10			
Read mode	TIMED	TIMED			

2.3 Aspect



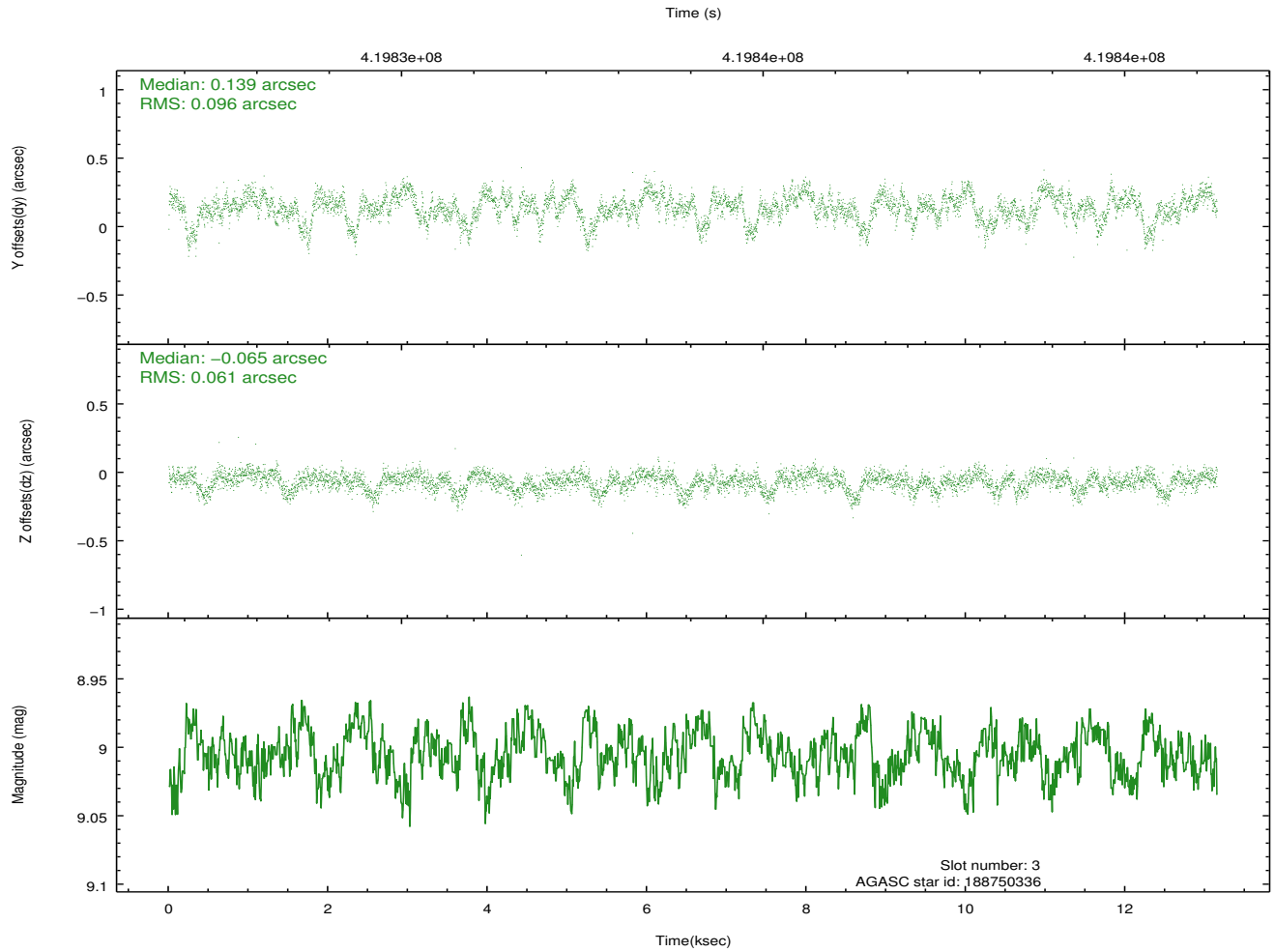
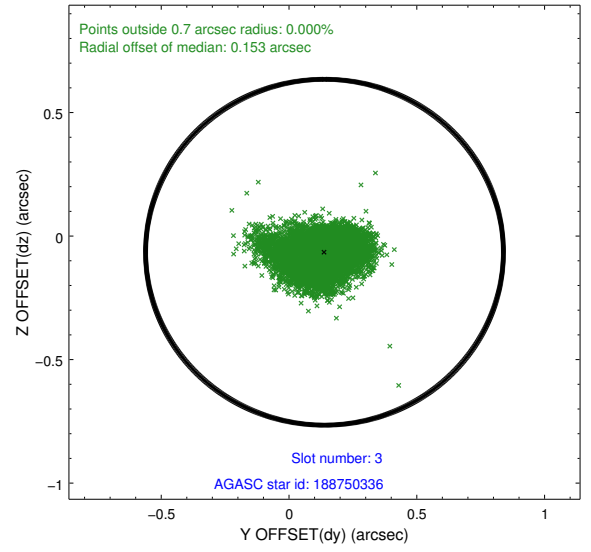
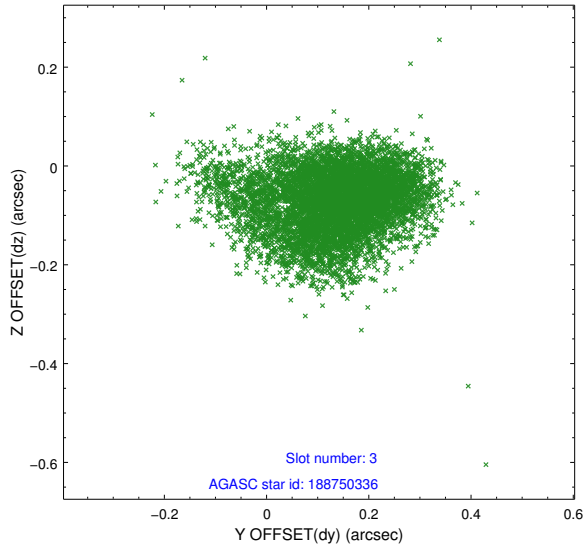


Slot Statistics

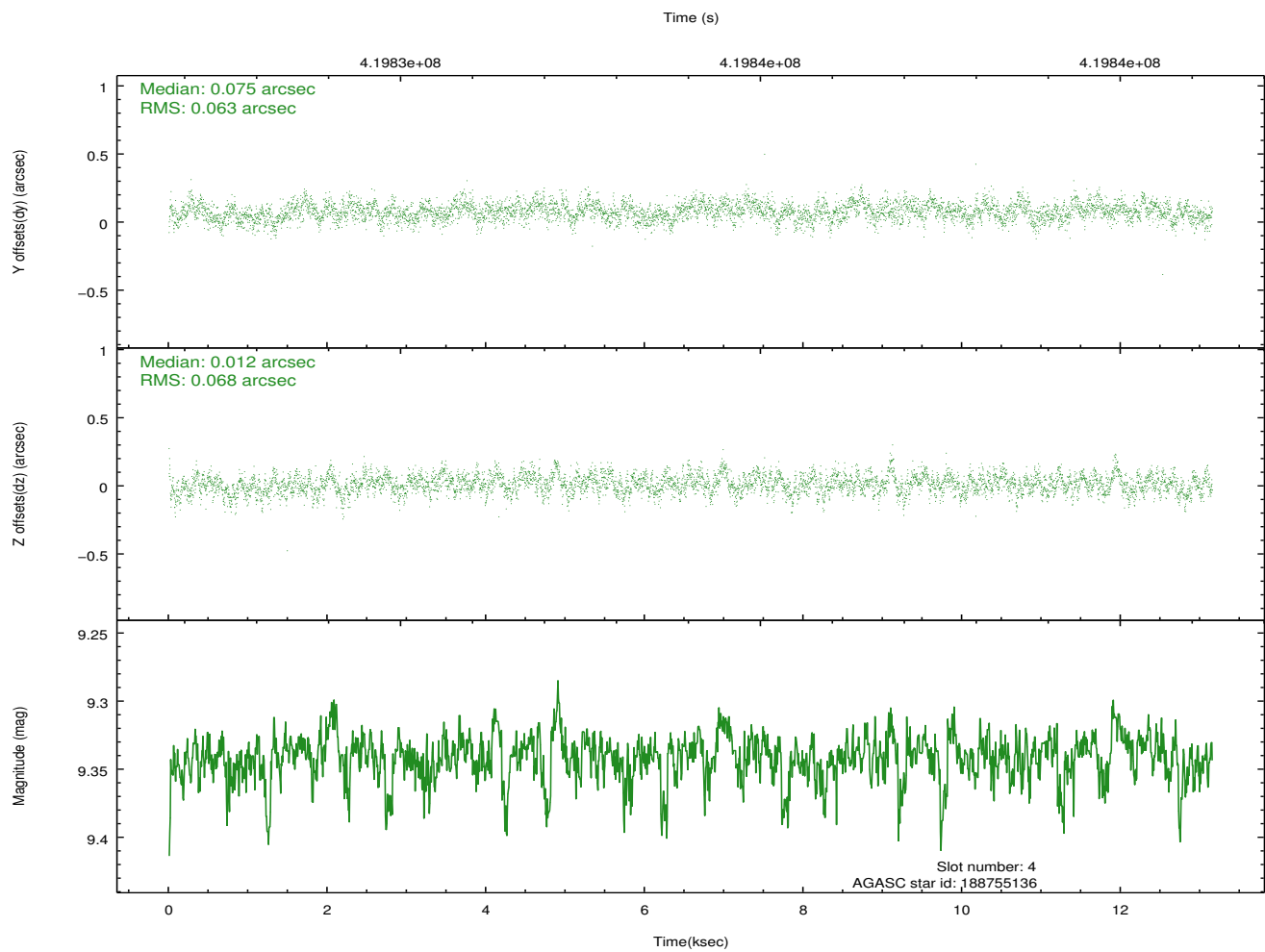
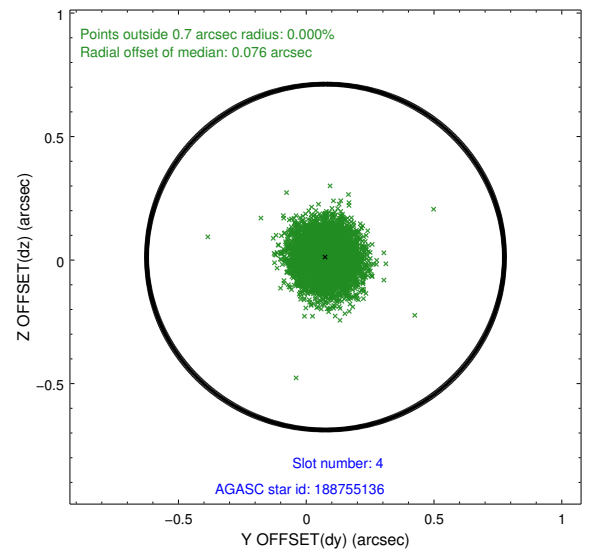
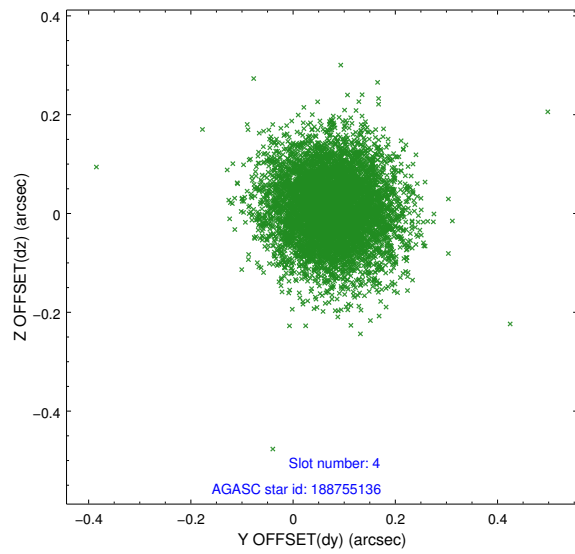
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.95	3208	-0.087	-0.054	0.017	0.024	0.000000	0.000000	-772.45	-1739.63
1	FID	ACIS-S-4	7.03	3208	0.229	0.059	0.011	0.018	0.000000	0.000000	2141.01	168.52
2	FID	ACIS-S-5	7.06	3208	-0.175	0.008	0.011	0.033	0.000000	0.000000	-1824.87	162.64
3	GUIDE	188750336	9.01	6412	0.139	-0.065	0.119	0.202	173.339416	21.577443	1830.10	-1902.26
4	GUIDE	188755136	9.34	6380	0.075	0.012	0.099	0.161	174.187066	21.059769	1389.74	1467.05
5	GUIDE	188758704	8.41	6413	-0.022	-0.017	0.086	0.136	174.474570	21.745106	-1106.38	580.89
6	GUIDE	188760112	7.74	6415	-0.137	-0.004	0.081	0.135	174.548855	21.871657	-1613.33	469.39
7	GUIDE	188750312	8.78	6411	-0.050	0.075	0.087	0.140	173.549642	22.023698	152.34	-2413.81

2.4 Star Slots

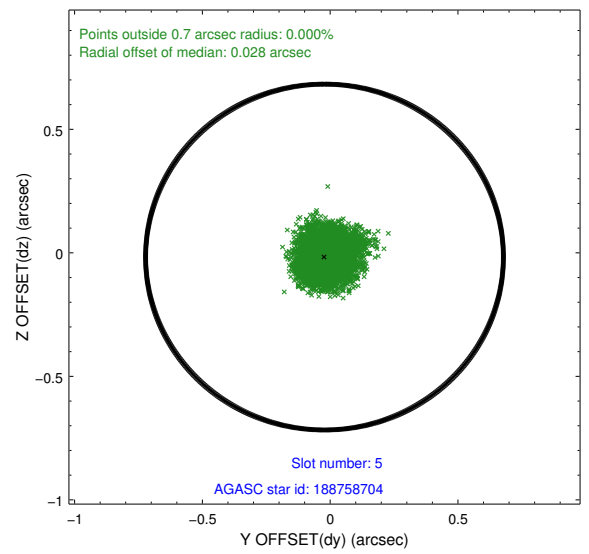
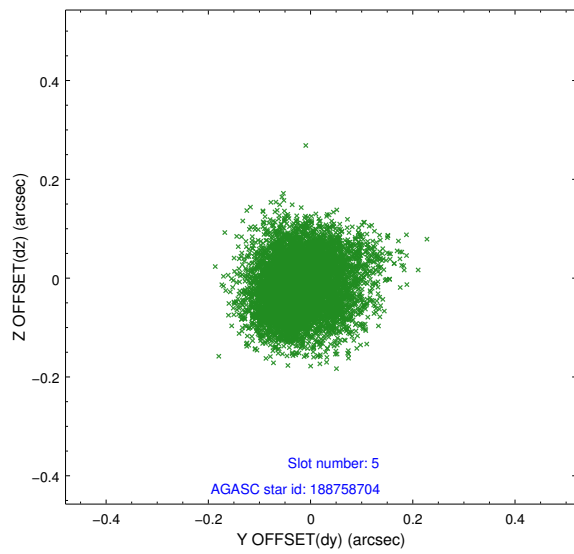
2.4.1 Slot 3



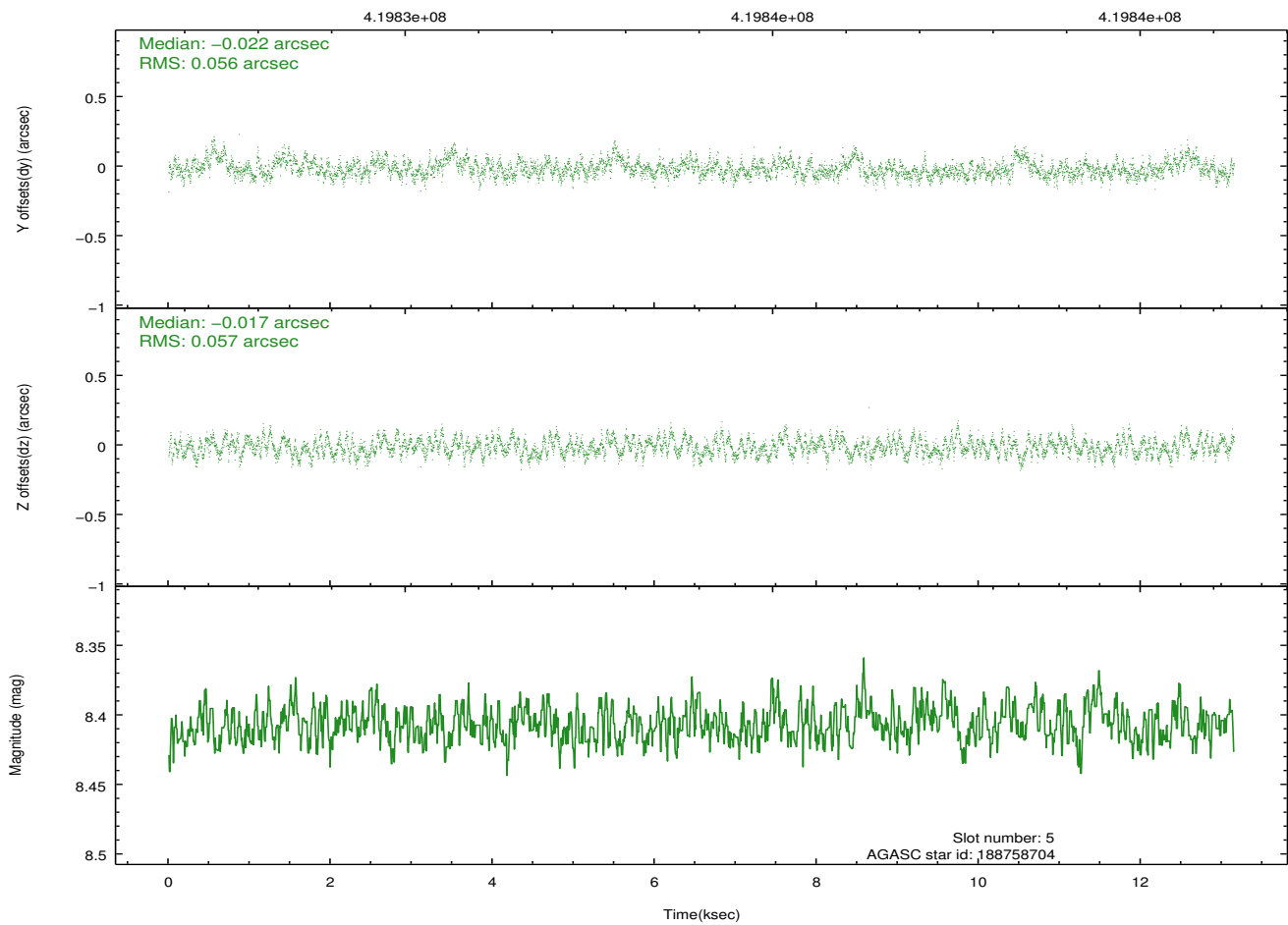
2.4.2 Slot 4



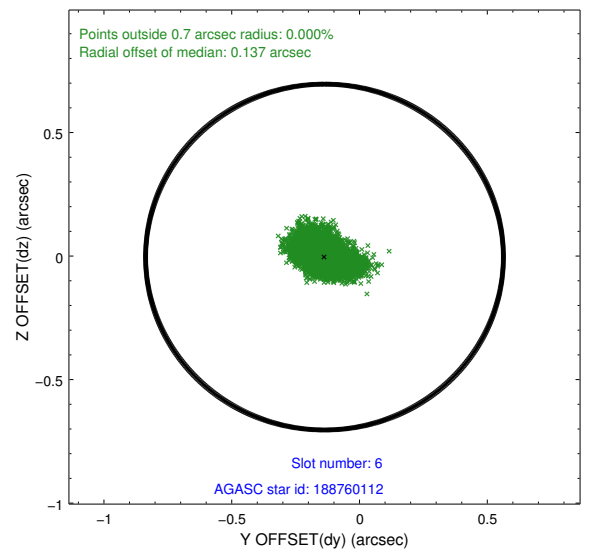
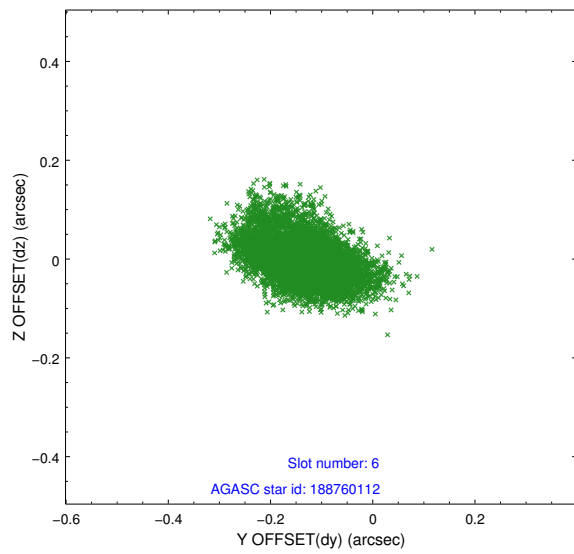
2.4.3 Slot 5



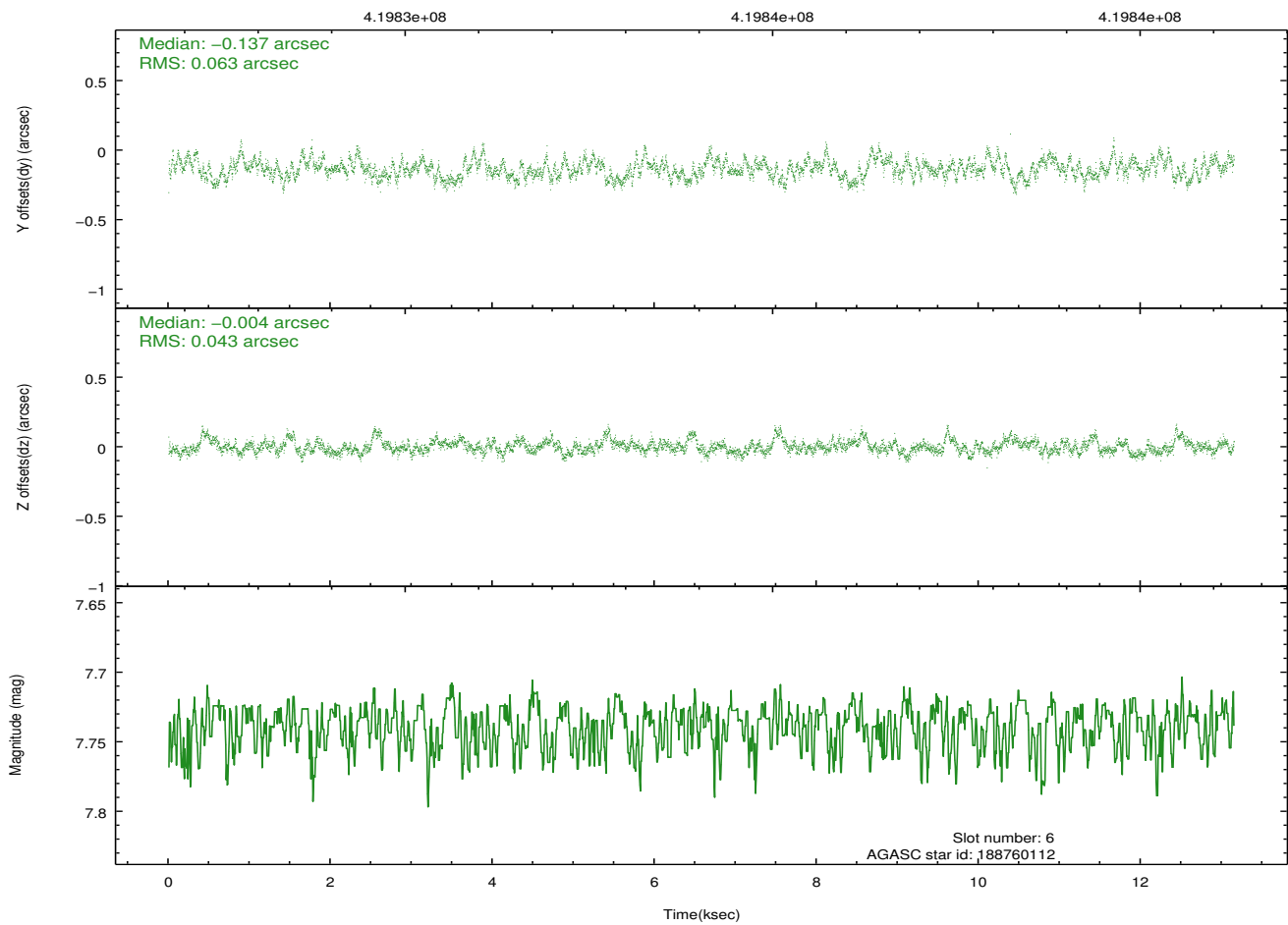
Time (s)



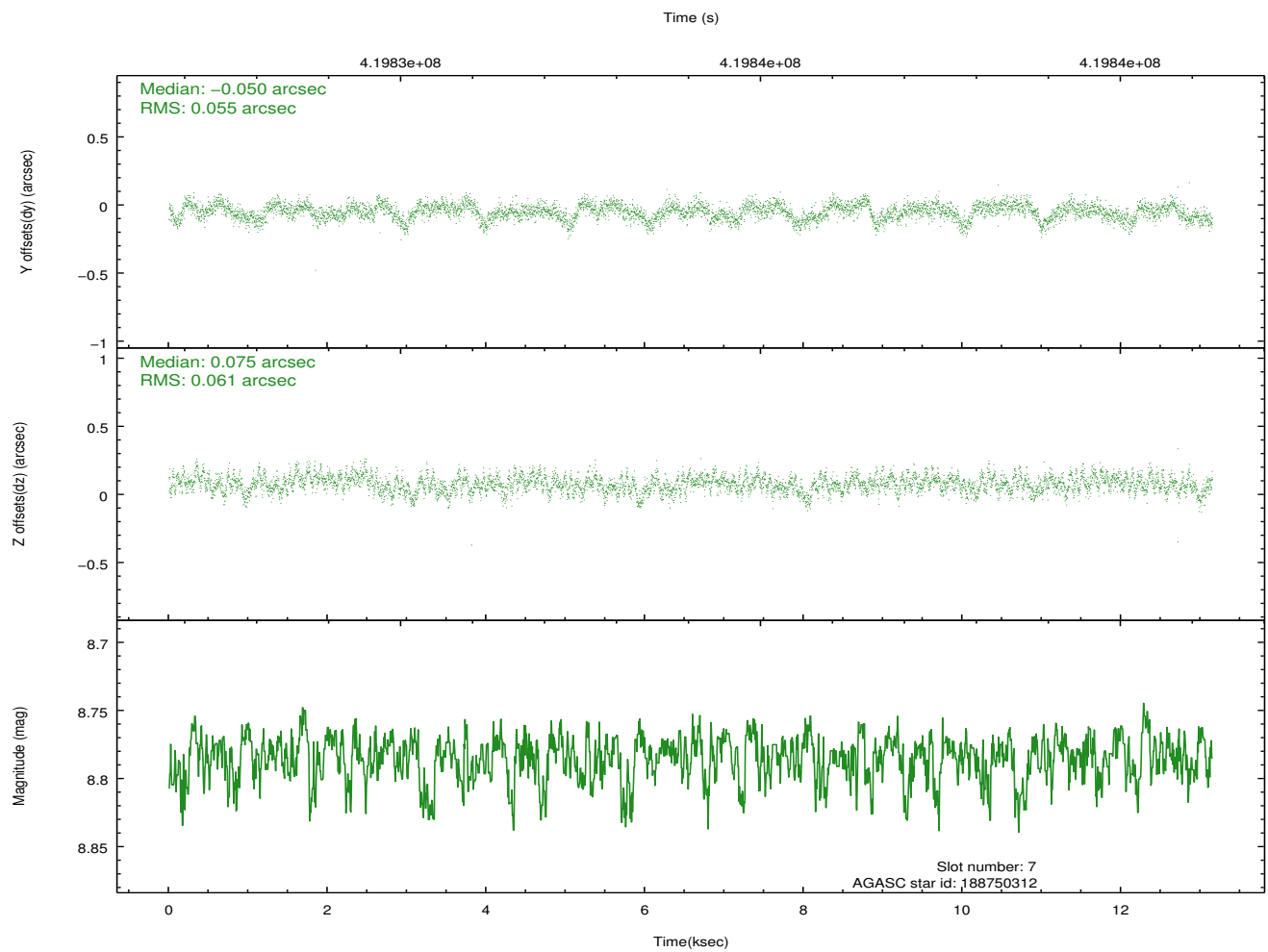
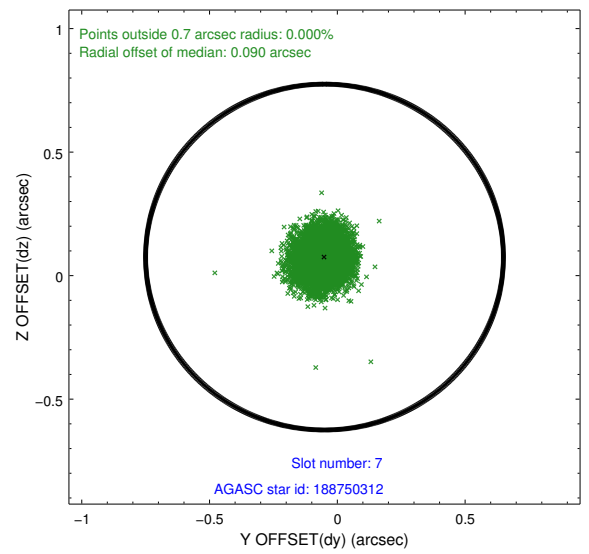
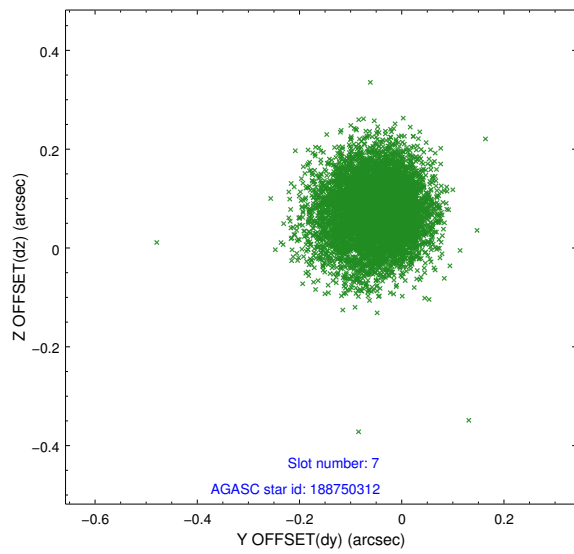
2.4.4 Slot 6



Time (s)

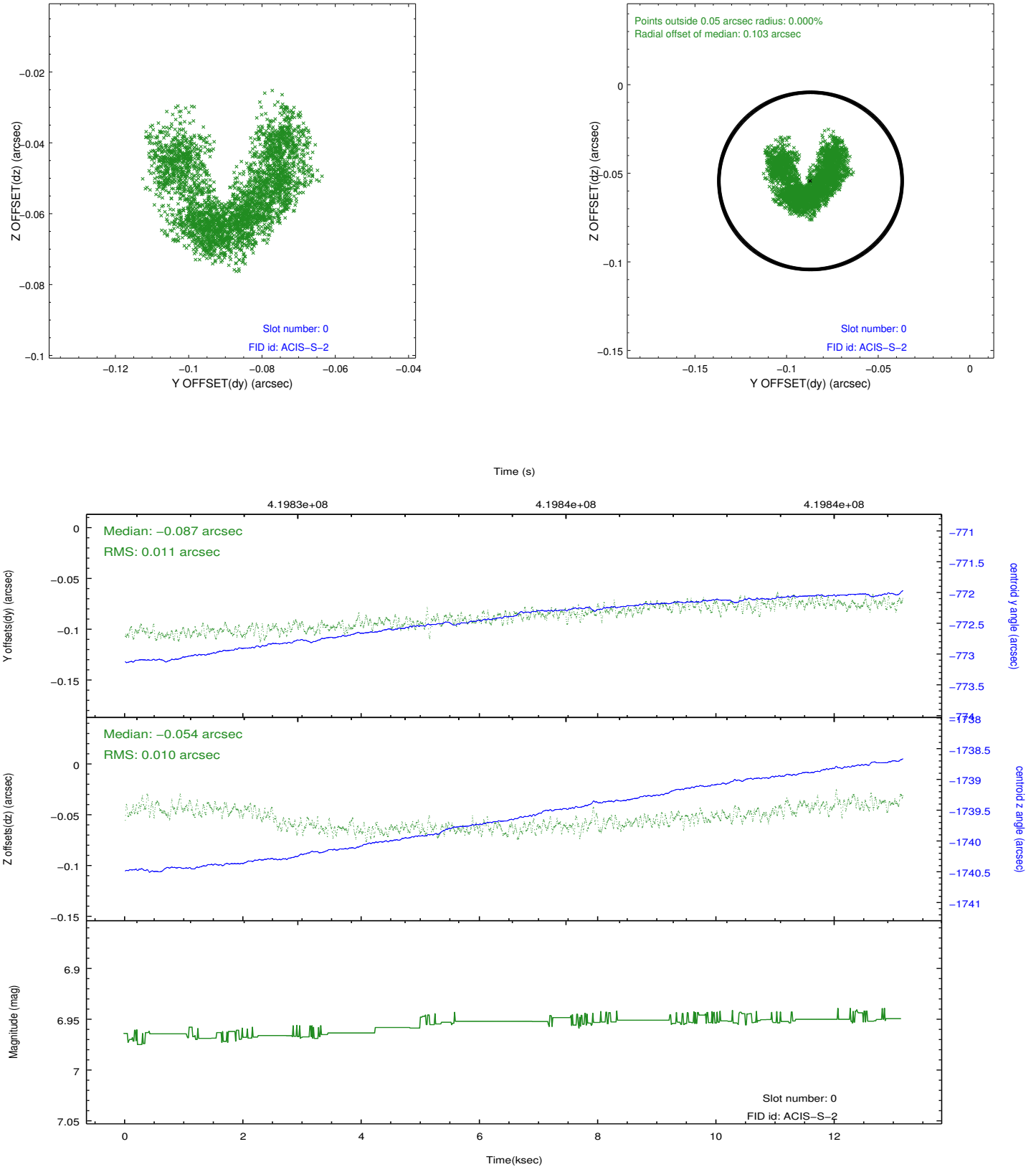


2.4.5 Slot 7

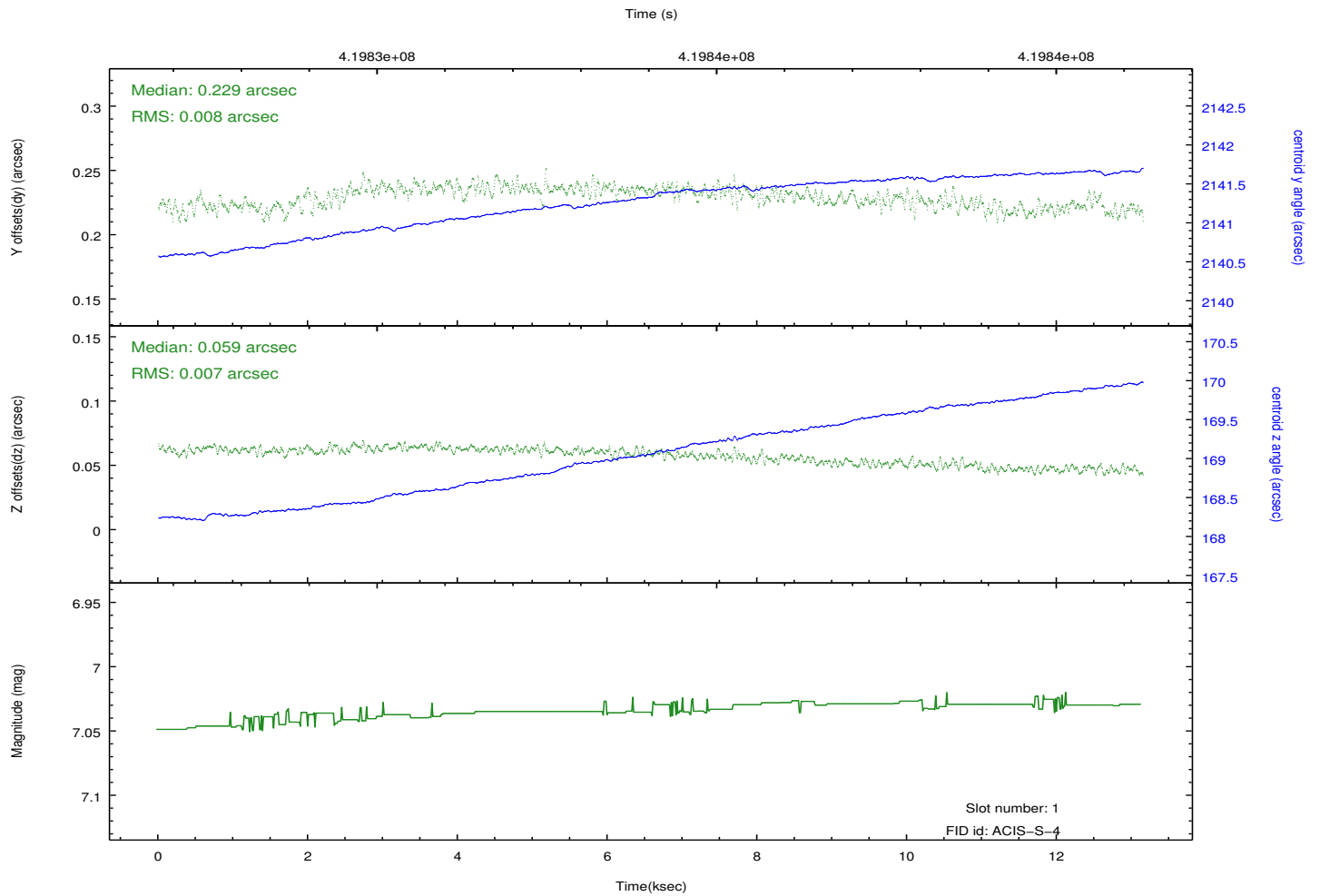
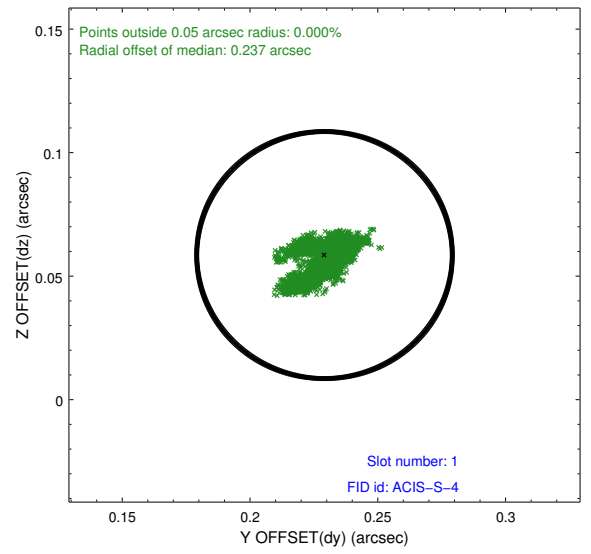
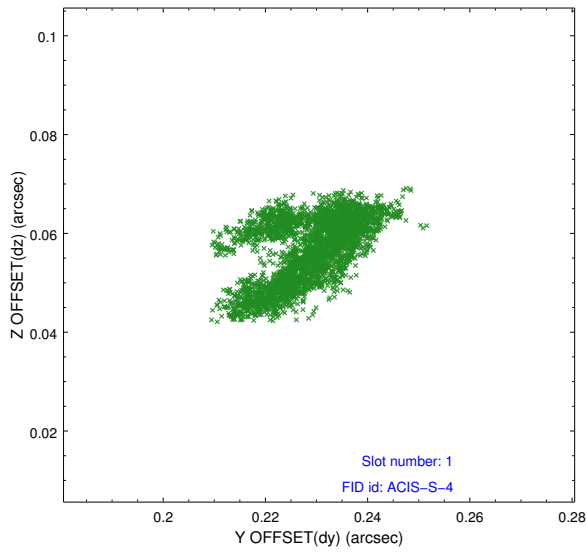


2.5 FID Slots

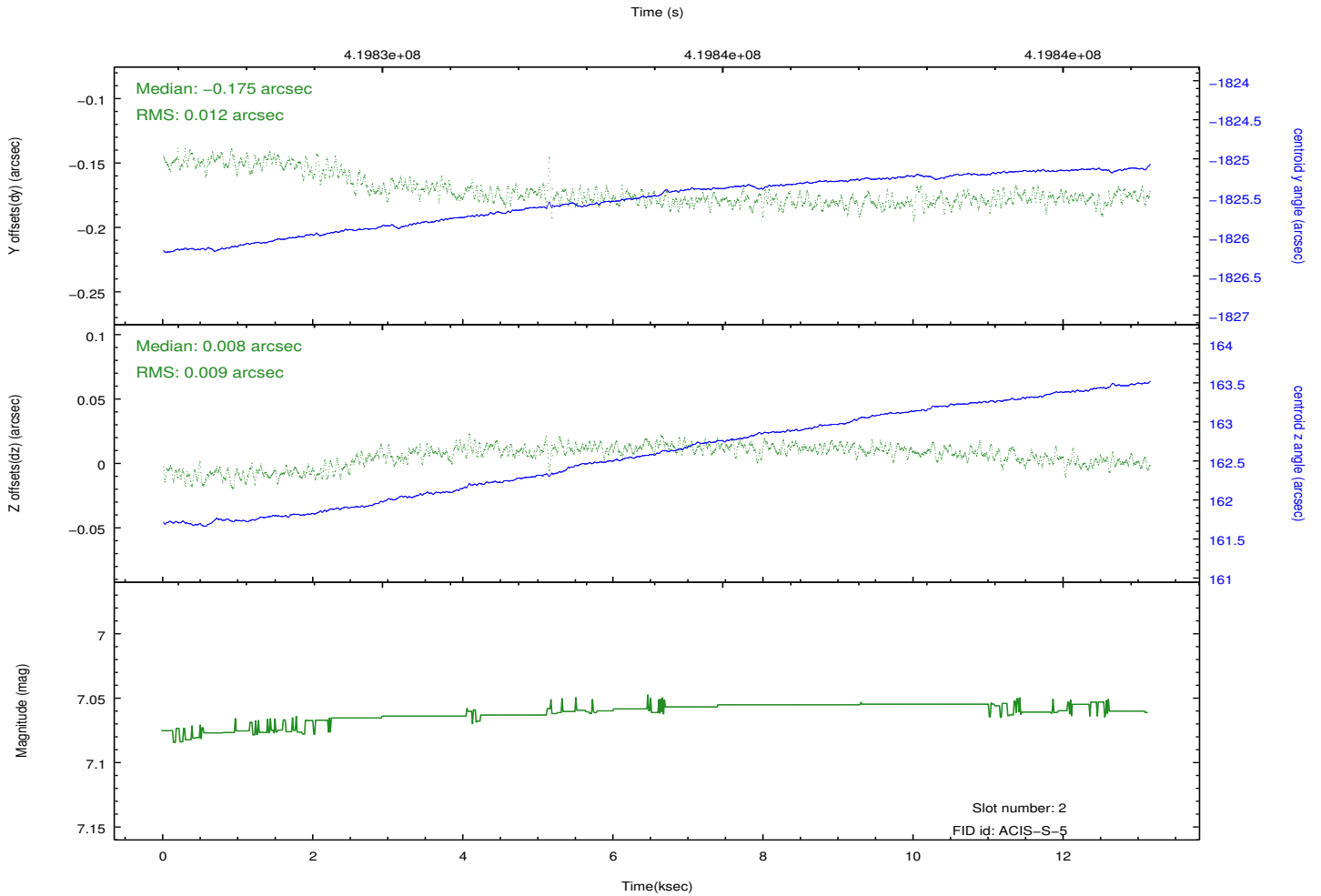
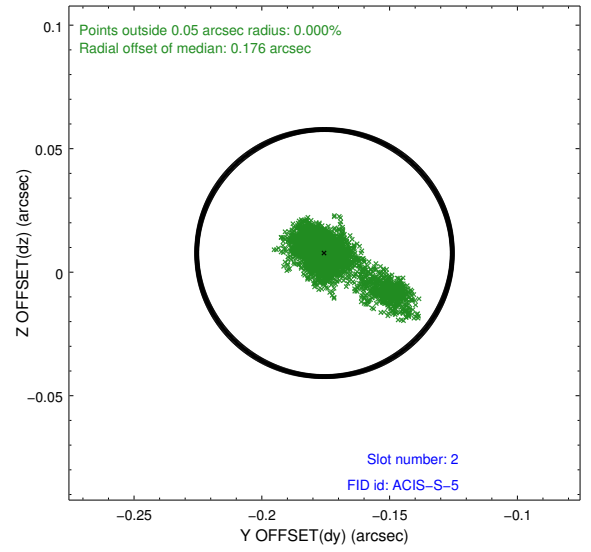
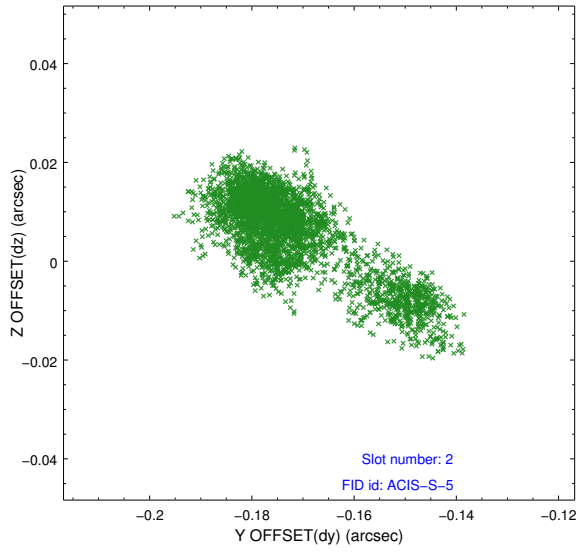
2.5.1 Slot 0



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)	2012.02.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	13.009455080092

A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.