

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 14974 - L2 Version 2
Chandra X-Ray Center

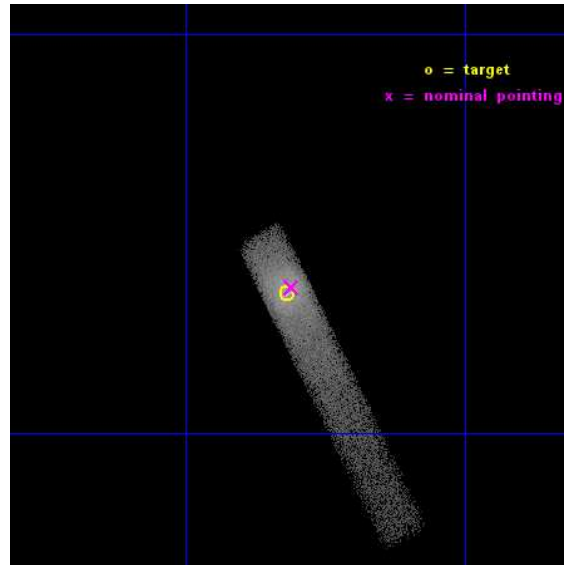
L2 Processing Date : Nov 30 2014

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1 Front

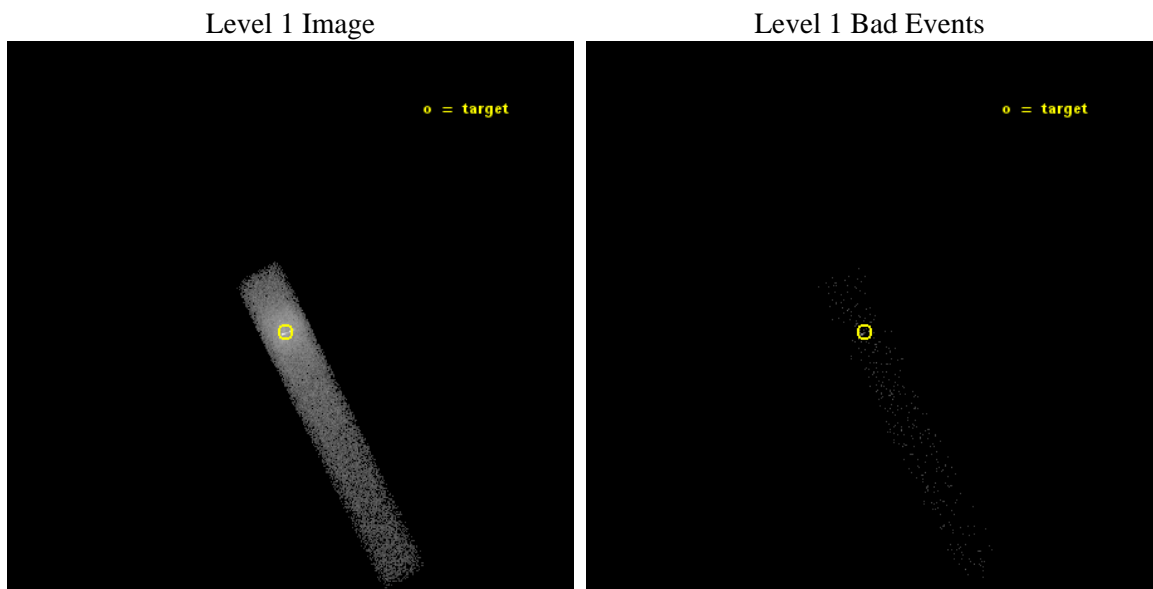
seq_num	702783	Sequence number
obs_id	14974	Observation id
title	Keeping Tabs on the Unique Jet in M87 During Cycle 14	Proposal tit
observer	Dr. Daniel Harris	Principal investigator
object	M87	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.704167	Observer's specified target RA [deg]
dec_targ	12.391667	Observer's specified target Dec [deg]
ra_nom	187.70251727819	Nominal RA [deg]
dec_nom	12.394263600125	Nominal Dec [deg]
roll_nom	63.181554223083	Nominal Roll [deg]
revision	2	Processing version of data
ontime	5070.7996977568	Sum of GTIs [s]
livetime	4598.9476671112	Livetime [s]
ontime7	5070.7996977568	Sum of GTIs [s]
l2events	42218	Number of level 2 events



2 OBI

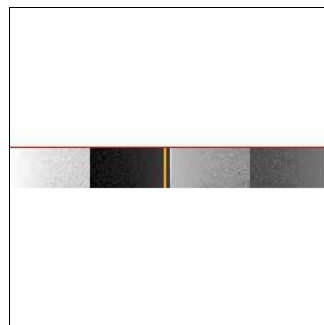
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	5000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	5070.7996977568	Sum of GTIs [s]
caldsver	4.6.4	 	ontime7	5070.7996977568	Sum of GTIs [s]
date	2014-11-30T10:15:15	Date and time of file creation	l1events	45260	Number of level 1 events
revision	2	Processing version of data			

2.1.4 Events

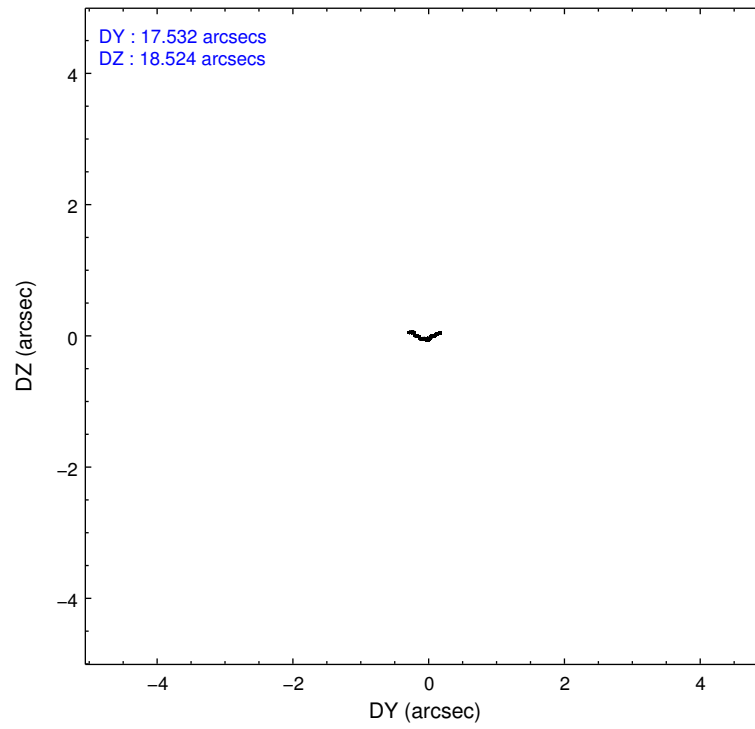
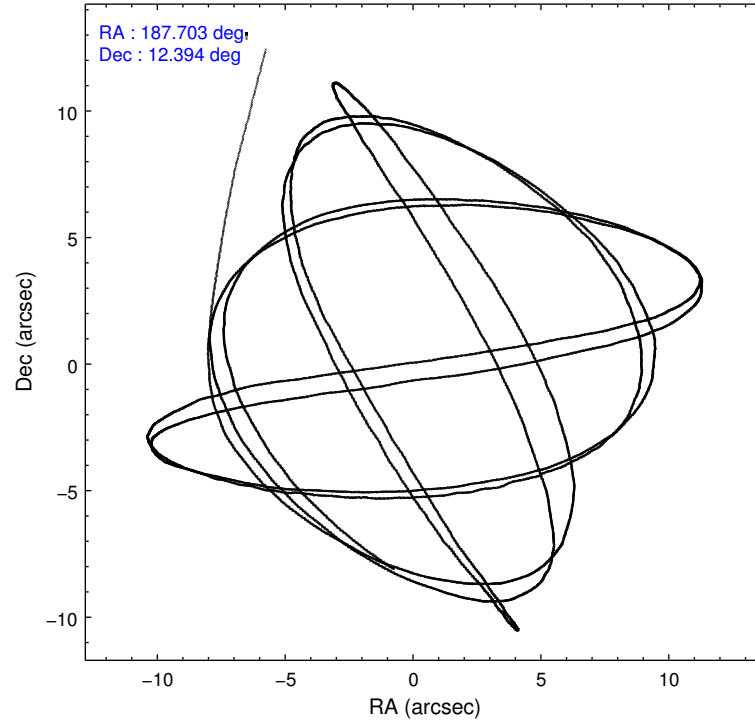
	ccd 7
level 1 events	45260
rejected events	2682
rejected %	5%

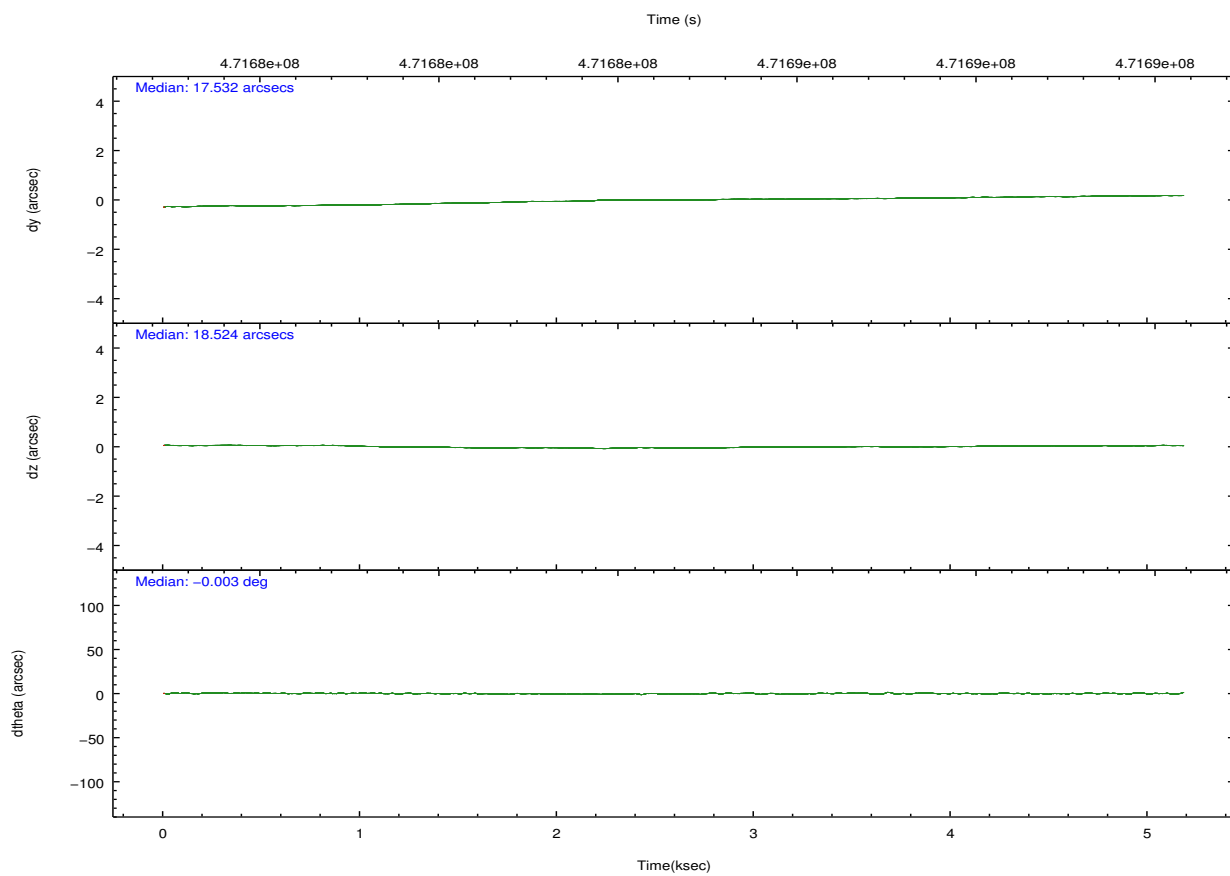
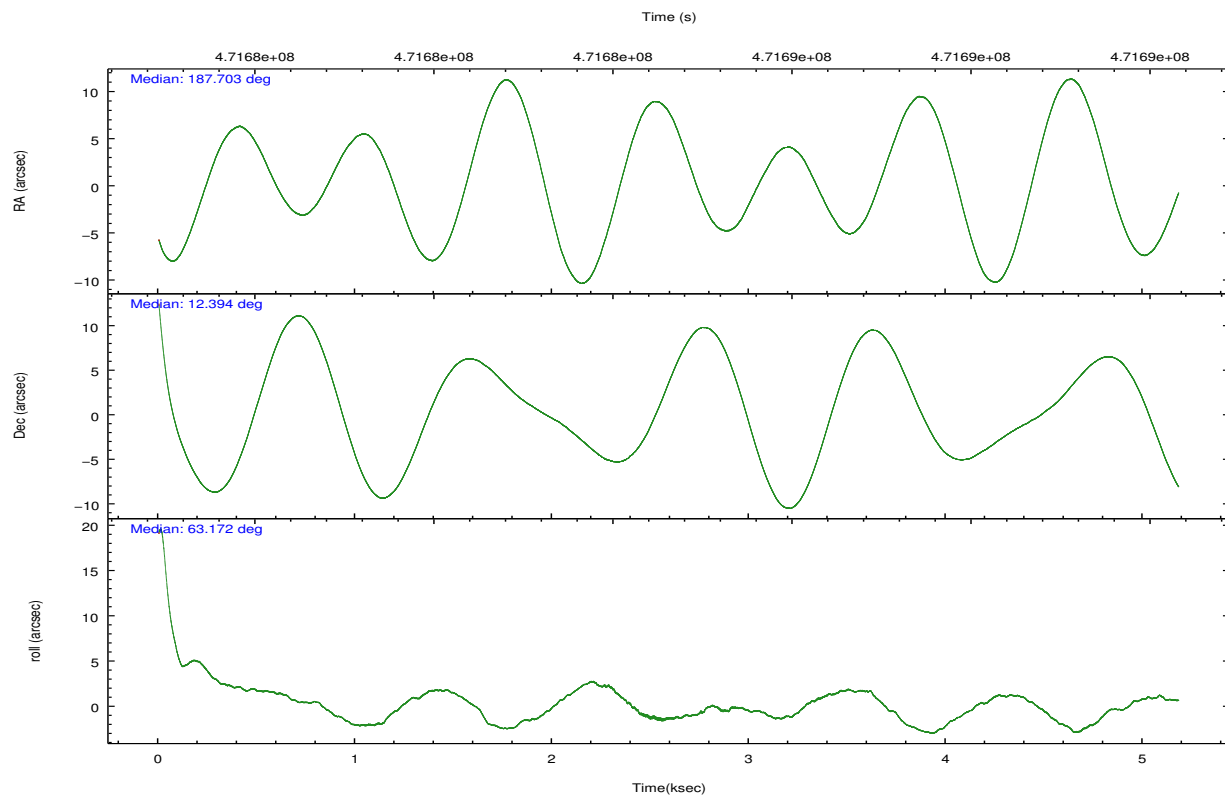
	ccd 7
grade 0 events	12699
	28%
grade 1 events	30
	0%
grade 2 events	10933
	24%
grade 3 events	5127
	11%
grade 4 events	4896
	10%
grade 5 events	762
	1%
grade 6 events	8933
	19%
grade 7 events	1880
	4%

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	187.704516	187.7025172781927	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	12.366995	12.394263600125	Subarray start row	449	449
[deg] Pointing Roll	63.024467	63.18155422308269	Subarray row count	128	128
[s] Window start time (MET)	470707267.184000	470707267.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	473299267.184000	473299267.184000	[s] Primary exposure time	0.000000	0.4
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	471682907.184000	471682135.98702			
Observation start date	2012-12-12T07:00:40	2012-12-12T06:48:55			
[s] Observation end time (MET)	471687907.184000	471688666.26237			
Observation end date	2012-12-12T08:24:00	2012-12-12T08:37:46			
Read mode	TIMED	TIMED			

2.3 Aspect



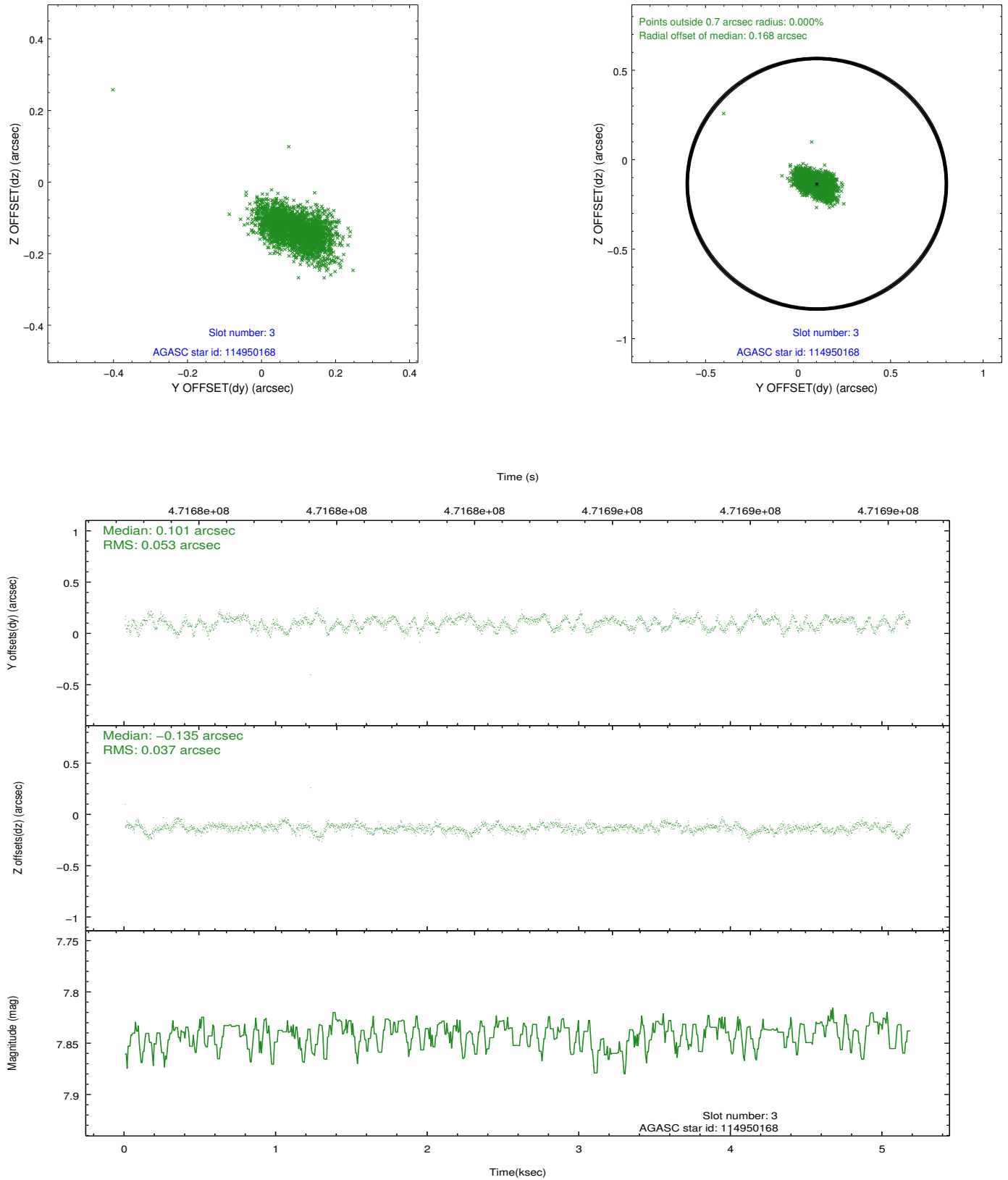


Slot Statistics

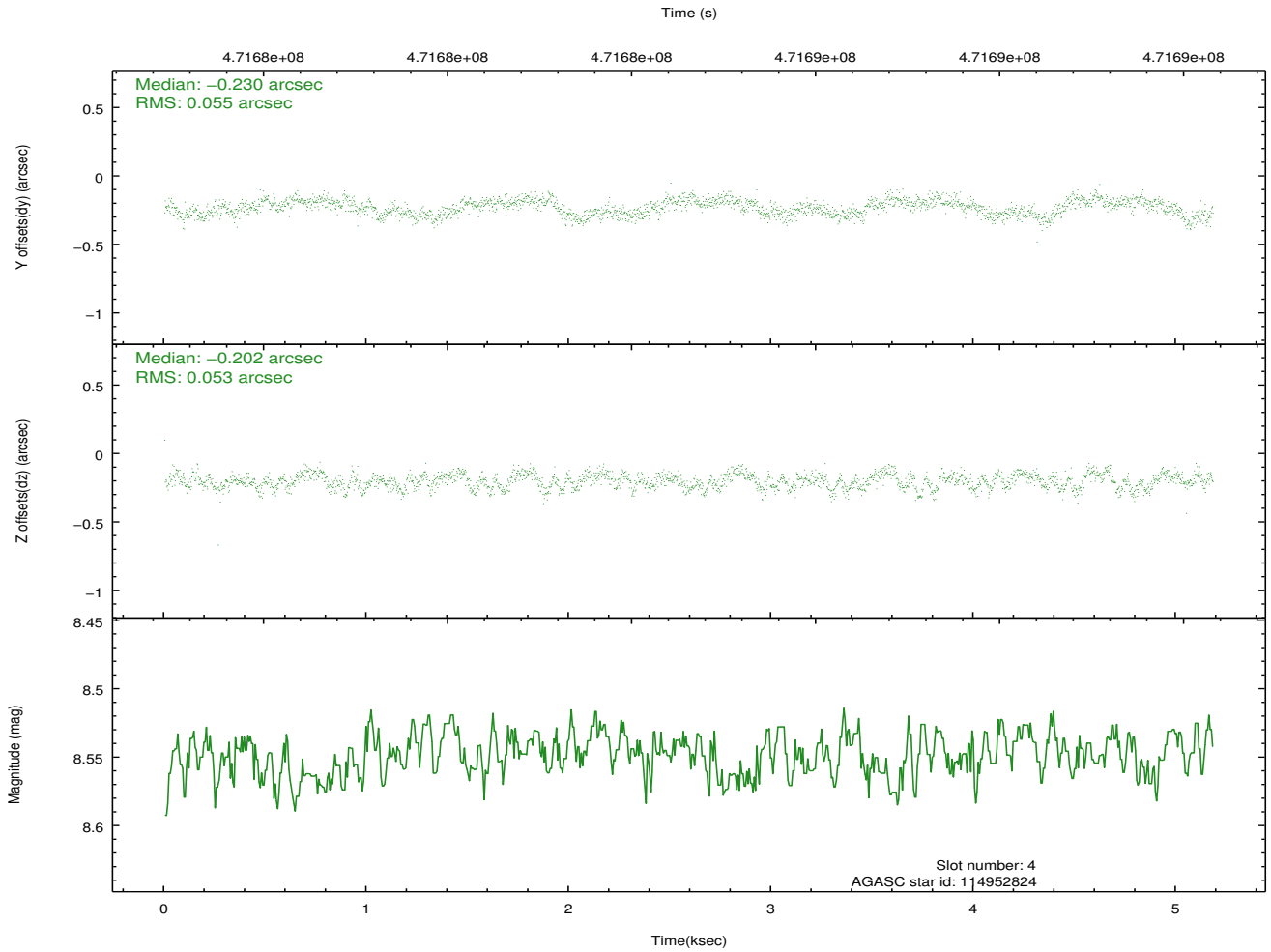
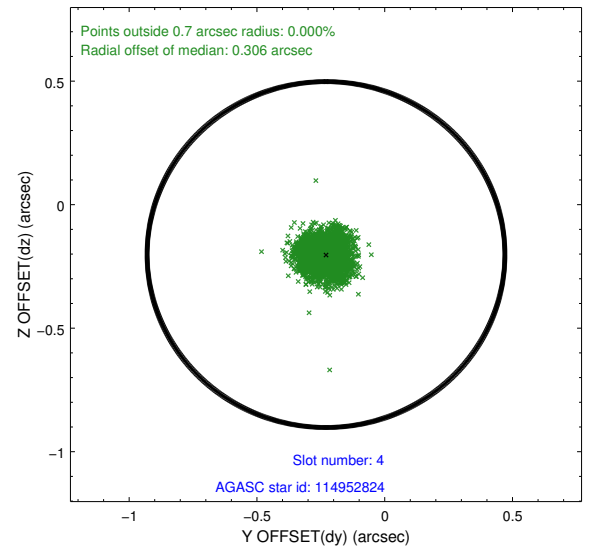
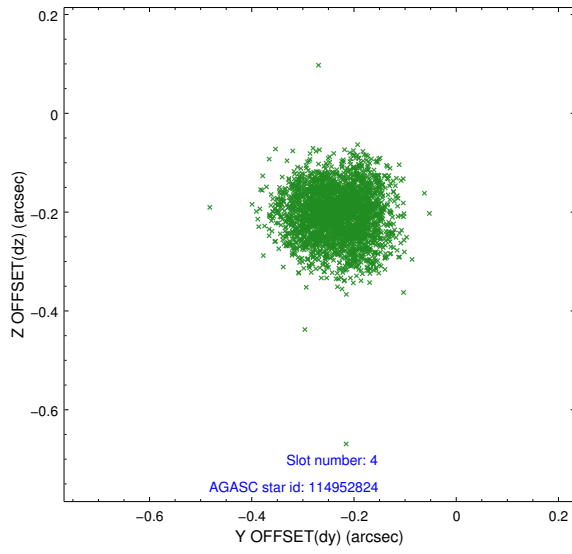
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.91	1264	-0.082	-0.043	0.006	0.010	0.000000	0.000000	-770.65	-1739.98
1	FID		ACIS-S-4	7.00	1264	0.211	0.051	0.006	0.011	0.000000	0.000000	2142.41	167.33
2	FID		ACIS-S-5	7.03	1264	-0.160	0.000	0.008	0.014	0.000000	0.000000	-1822.04	162.36
3	GUIDE	used	114950168	7.84	2528	0.101	-0.135	0.067	0.113	187.143398	12.117441	-1694.77	1353.22
4	GUIDE	used	114952824	8.55	2526	-0.230	-0.202	0.083	0.124	187.703904	12.486727	382.20	198.46
5	GUIDE	used	114954440	9.20	2527	0.126	-0.347	0.102	0.167	186.915066	12.219118	-1730.36	2234.30
6	GUIDE	used	114955056	8.32	2528	-0.115	0.853	0.069	0.110	187.914001	12.127854	-432.94	-1045.44
7	GUIDE	used	114957008	8.24	2526	0.119	-0.175	0.076	0.121	186.894794	12.099160	-2149.07	2104.71

2.4 Star Slots

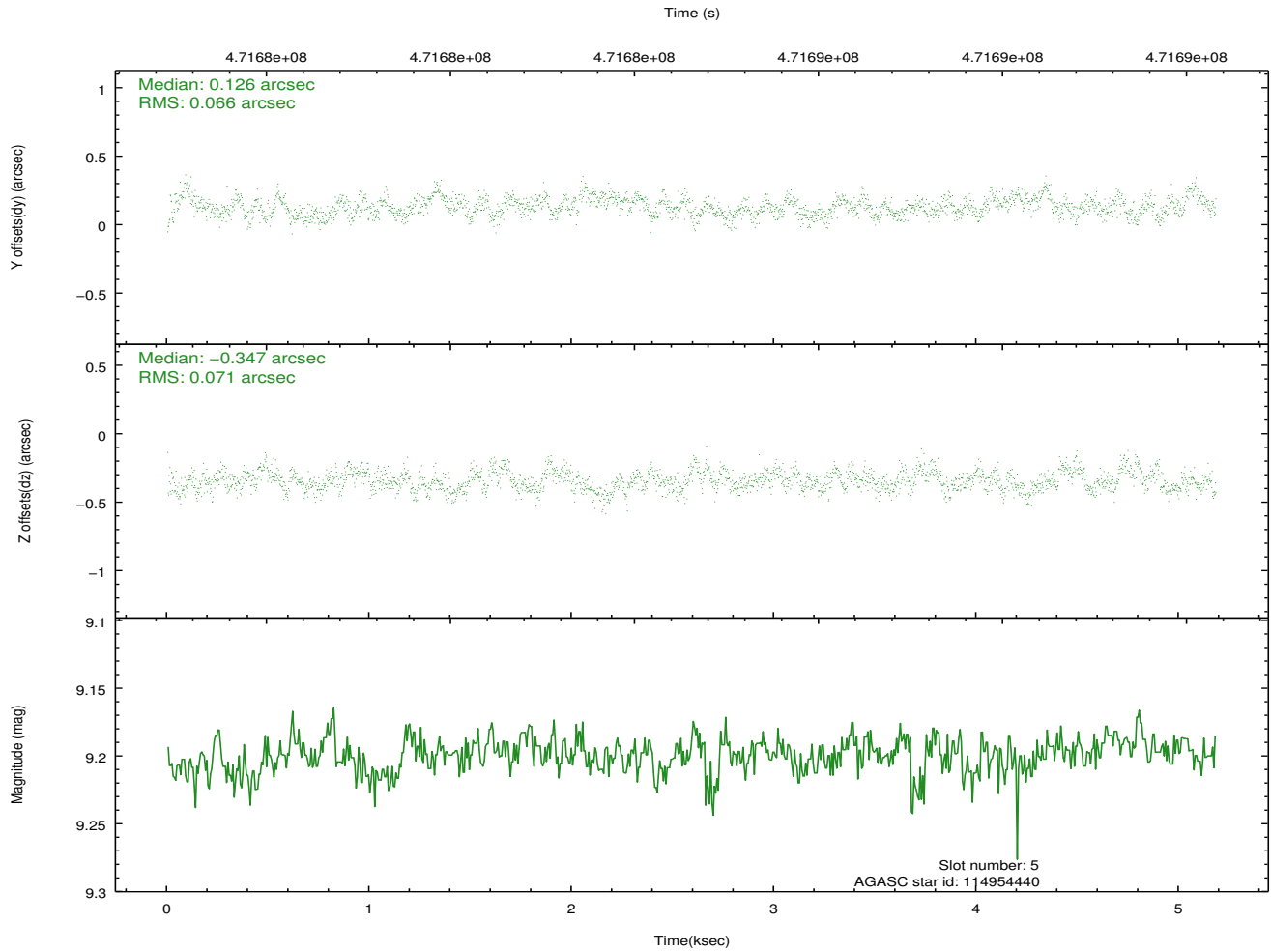
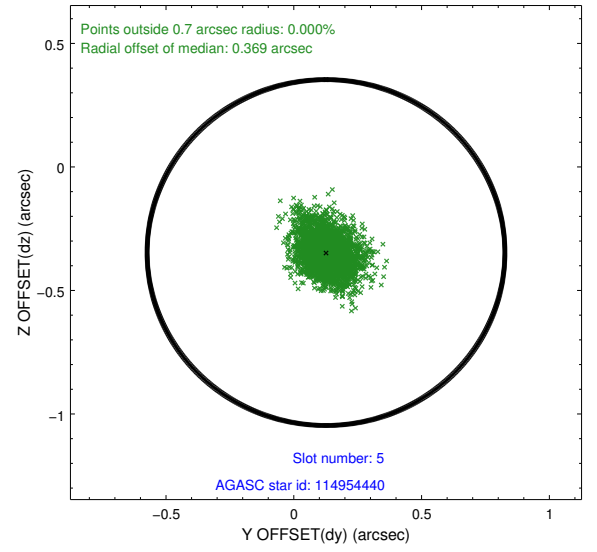
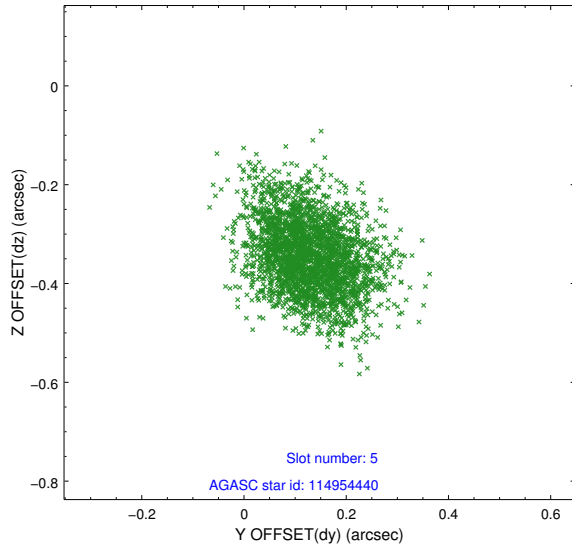
2.4.1 Slot 3



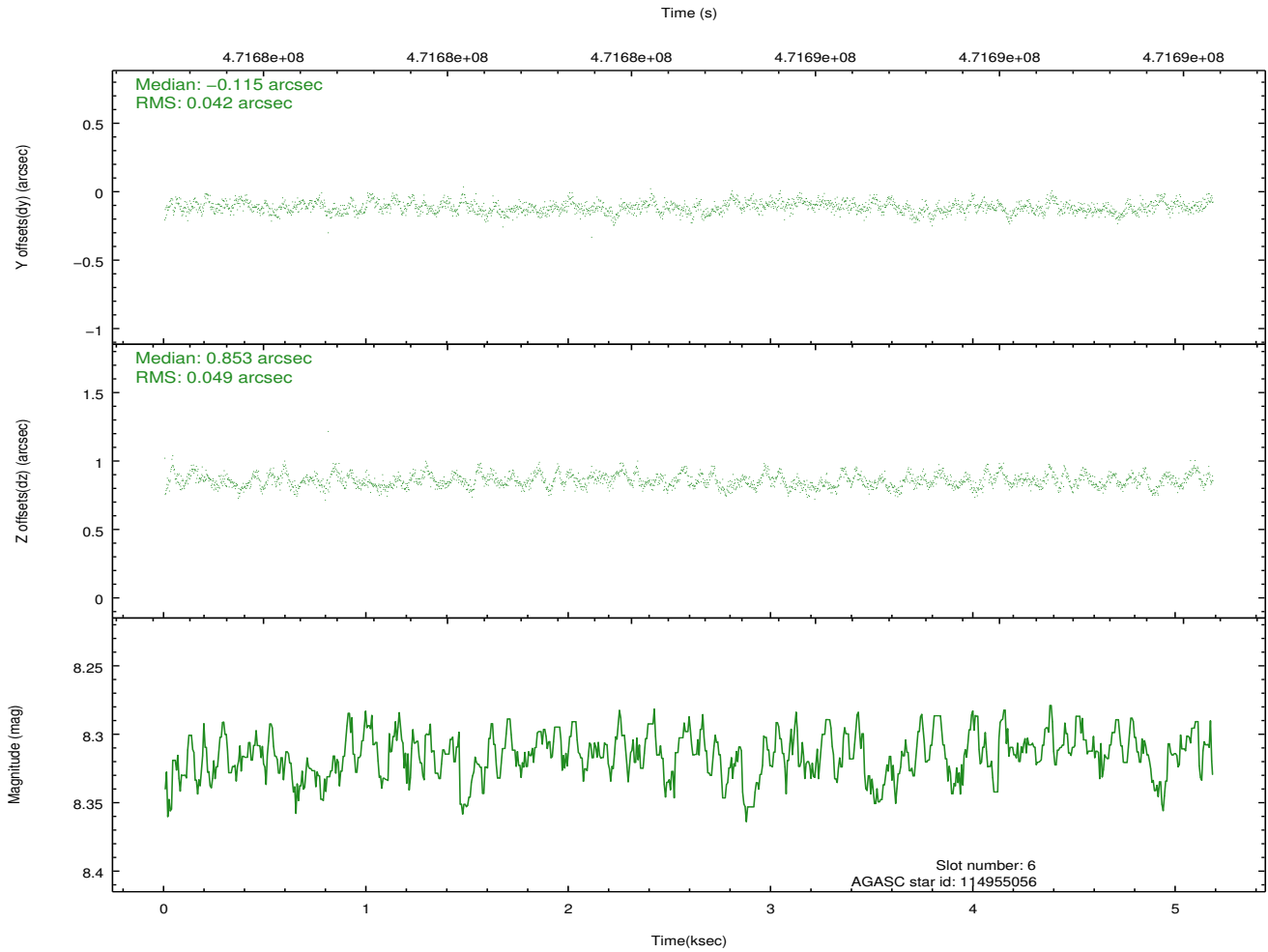
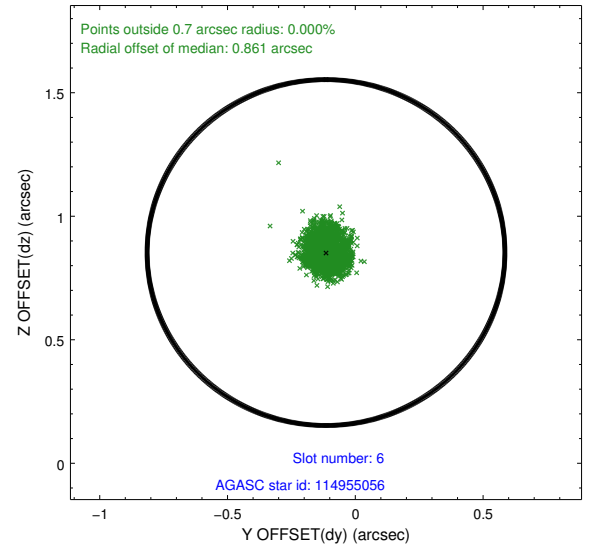
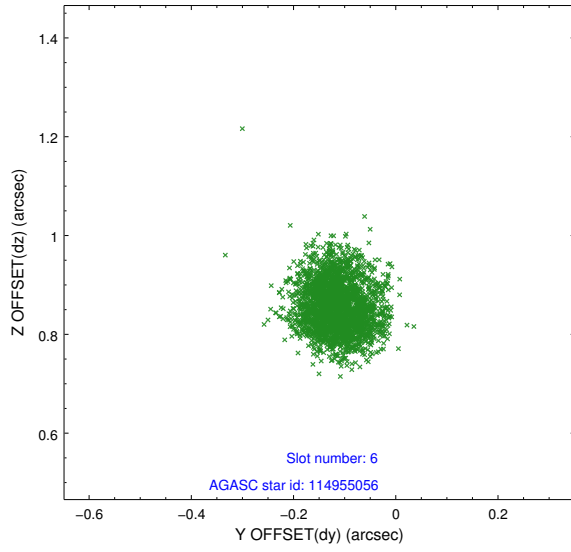
2.4.2 Slot 4



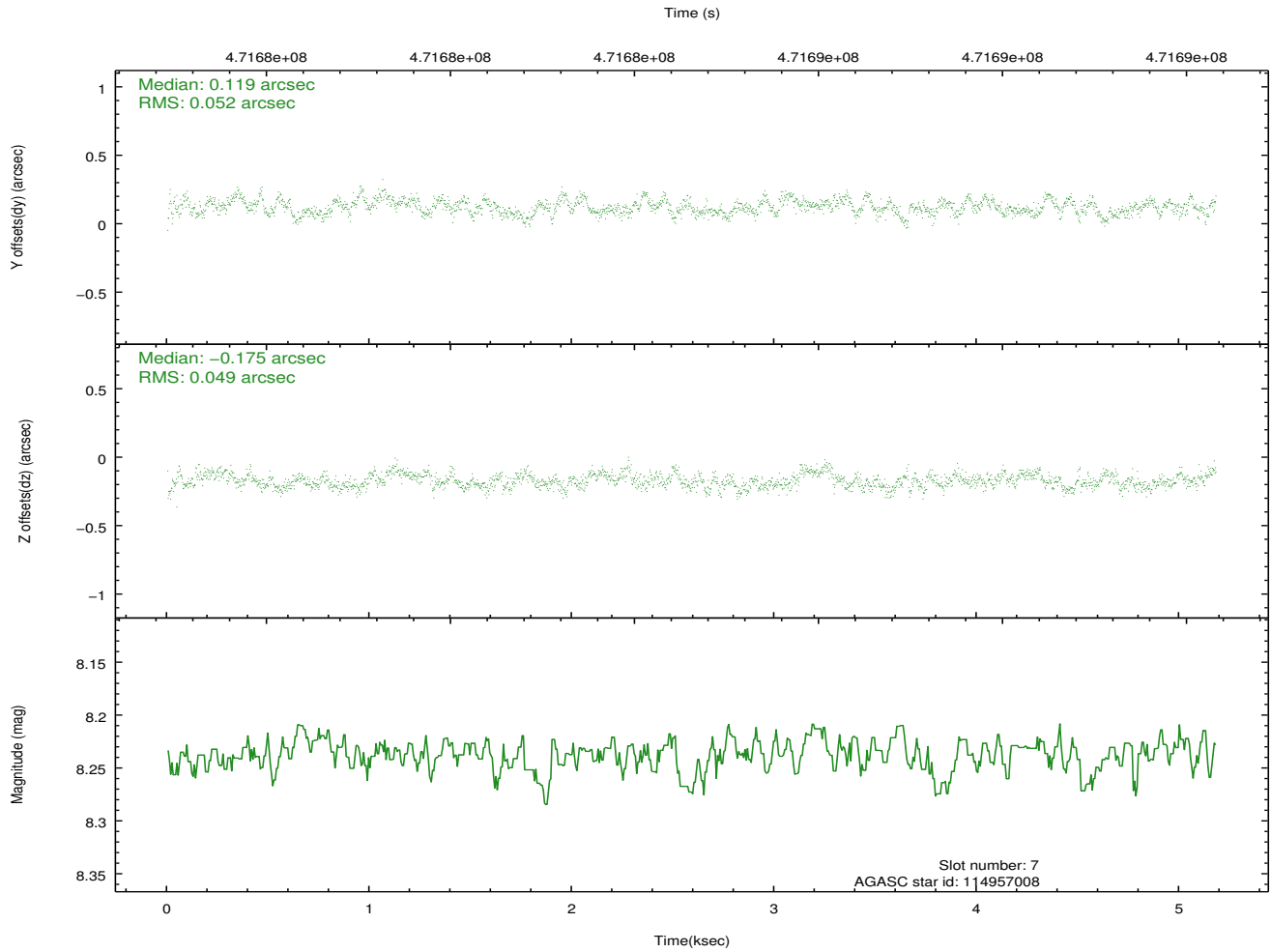
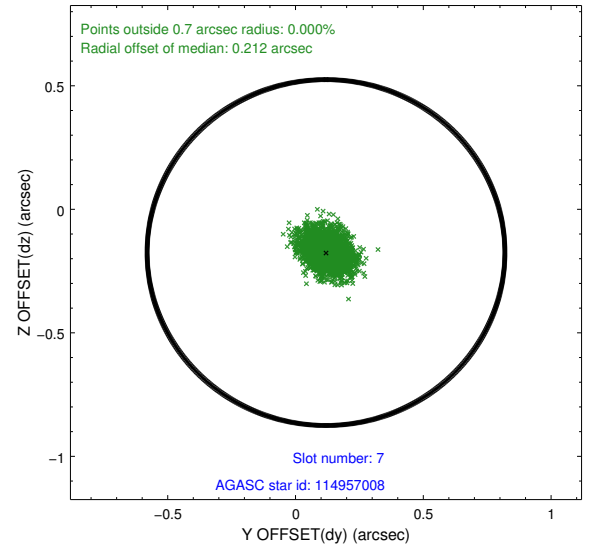
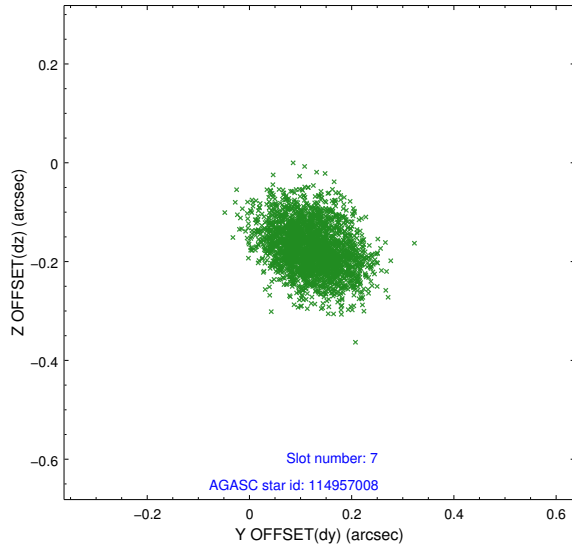
2.4.3 Slot 5



2.4.4 Slot 6

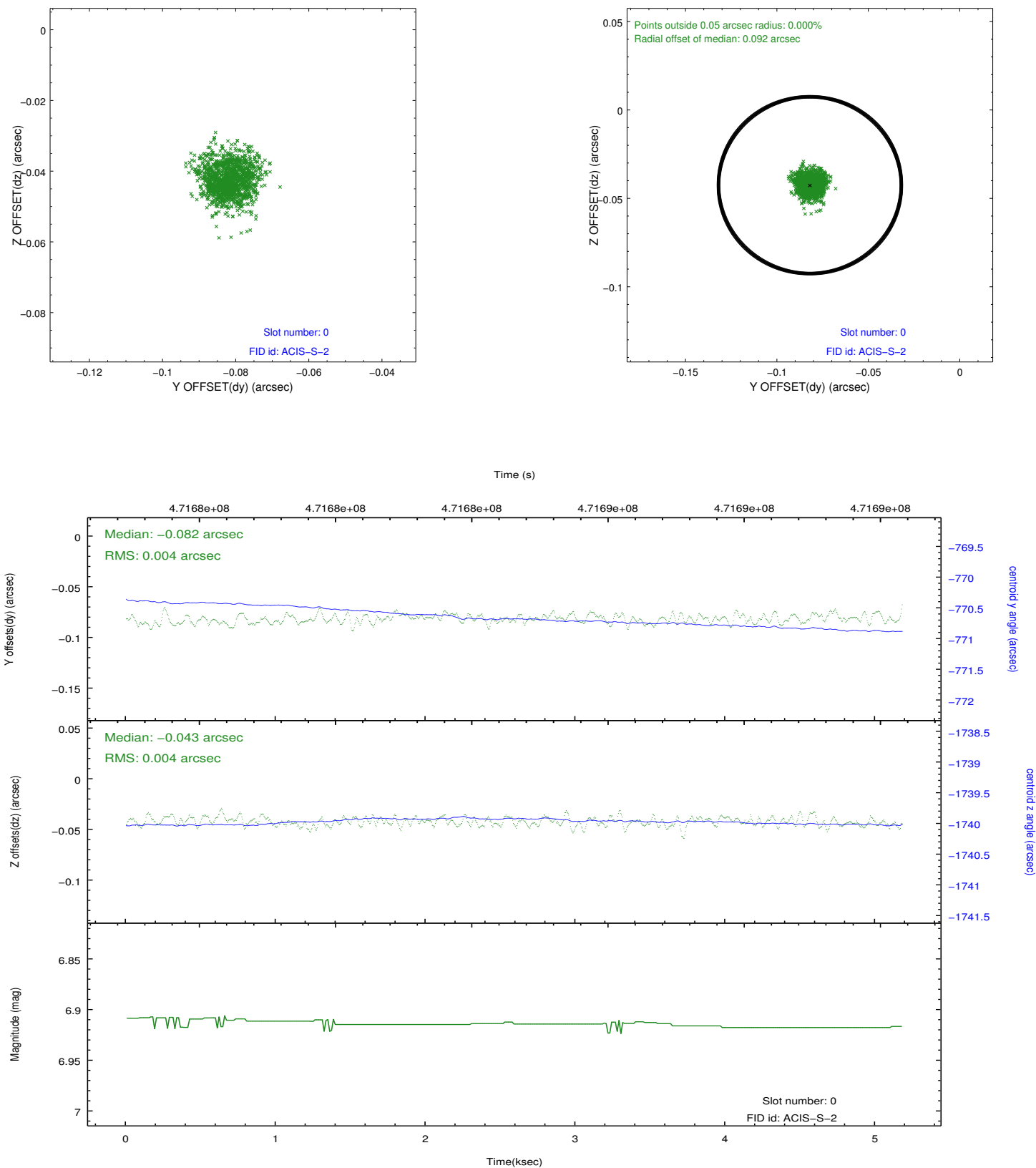


2.4.5 Slot 7

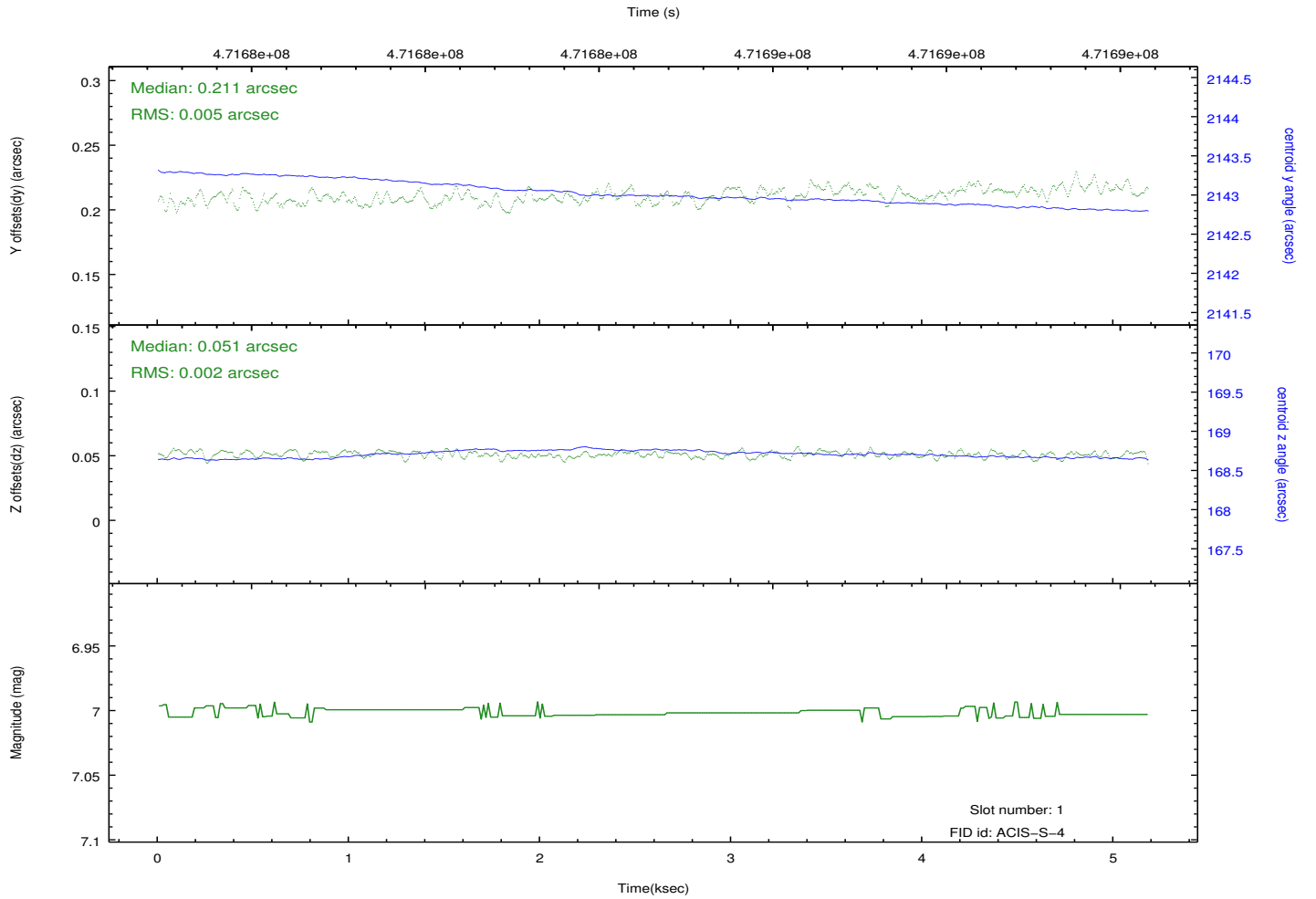
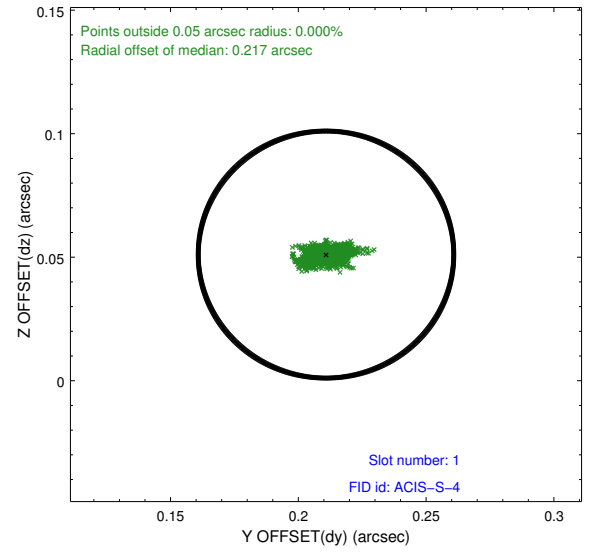
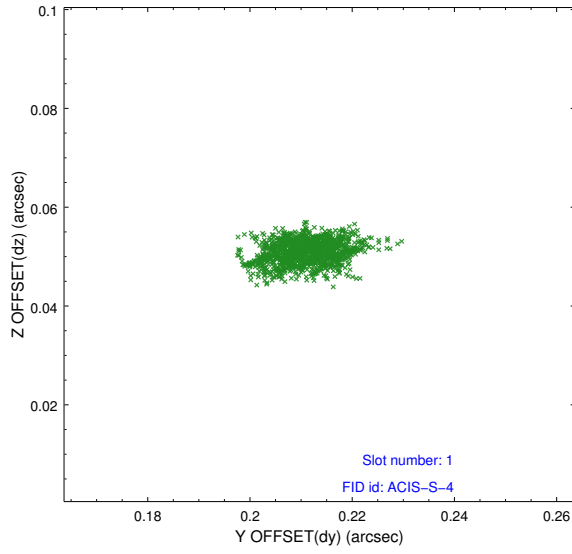


2.5 FID Slots

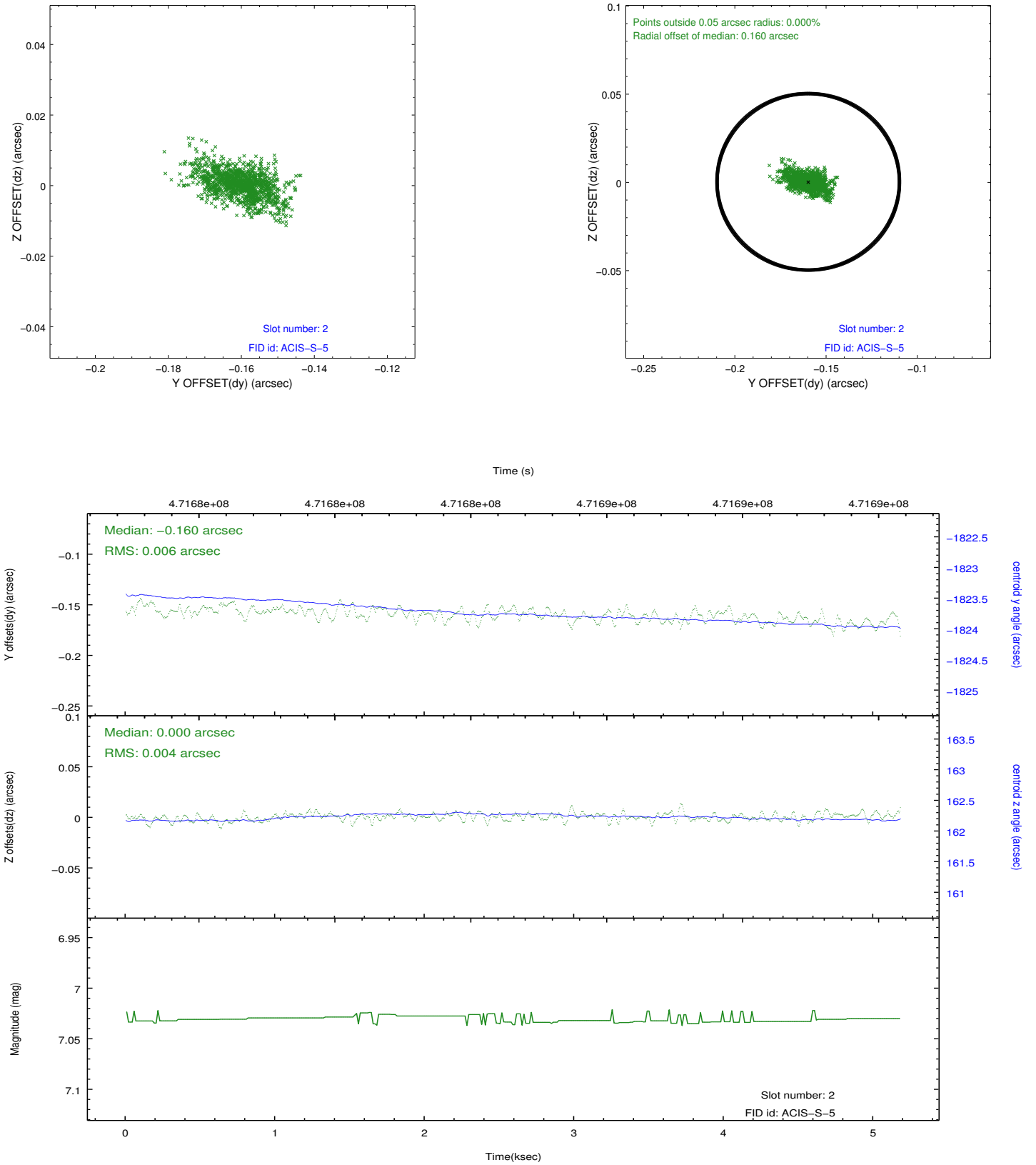
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.0707996977568

A.2 Comments

Window preference met.

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.