

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 15564 - L2 Version 2
Chandra X-Ray Center

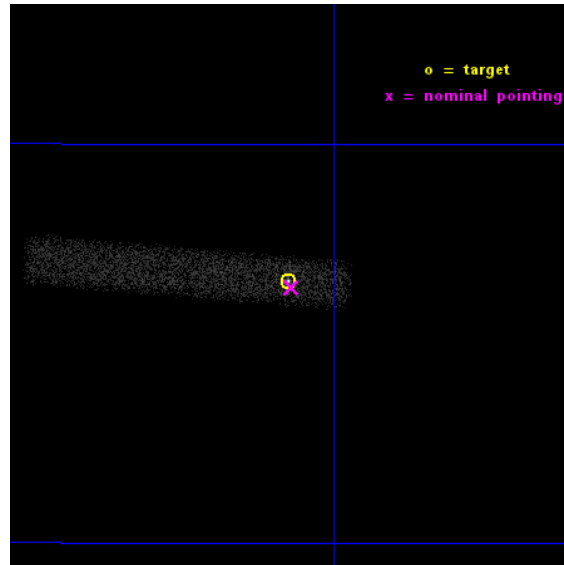
L2 Processing Date : Nov 30 2014

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

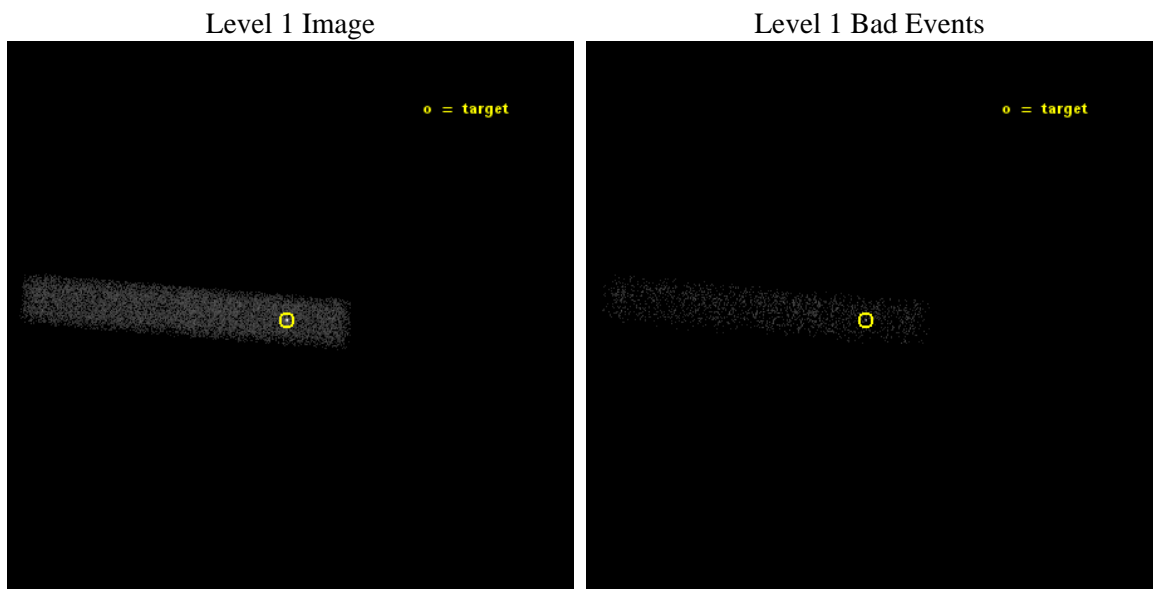
seq_num	501939	Sequence number
obs_id	15564	Observation id
title	Magnetars in Quiescence: a Key to Test the 'Grand Unification' of Neutron Stars	Proposal title
observer	Dr Chi-Yung Ng	Principal investigator
object	SGR 0501+4516	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	75.278167	Observer's specified target RA [deg]
dec_targ	45.276089	Observer's specified target Dec [deg]
ra_nom	75.276095424161	Nominal RA [deg]
dec_nom	45.27340399999	Nominal Dec [deg]
roll_nom	184.47969272681	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15469.59907794	Sum of GTIs [s]
livetime	14030.109811301	Livetime [s]
ontime7	15469.59907794	Sum of GTIs [s]
l2events	11254	Number of level 2 events



2 OBI

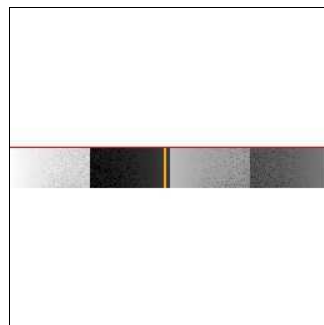
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15400.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	15469.59907794	Sum of GTIs [s]
caldsver	4.6.4	 	ontime7	15469.59907794	Sum of GTIs [s]
date	2014-11-30T05:32:36	Date and time of file creation	l1events	19217	Number of level 1 events
revision	2	Processing version of data			

2.1.4 Events

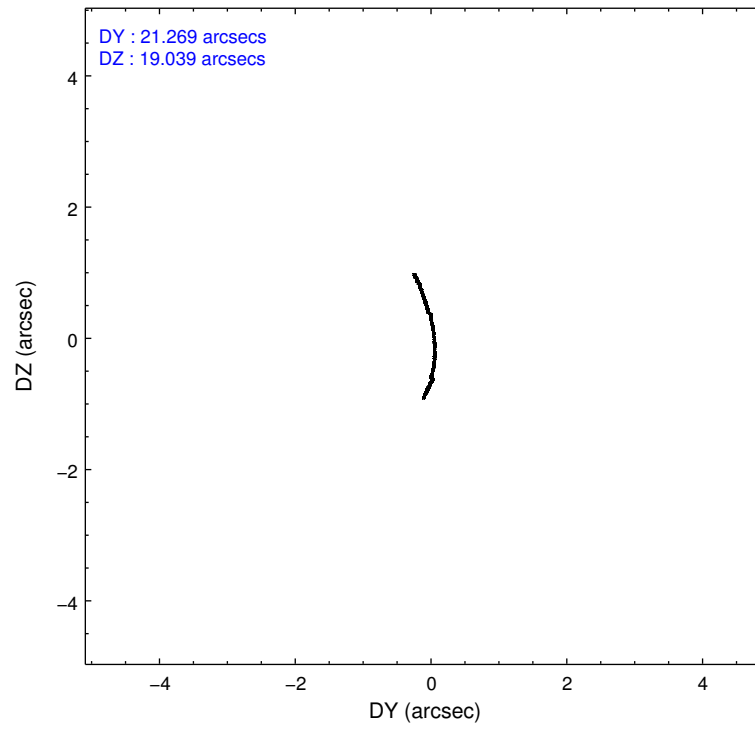
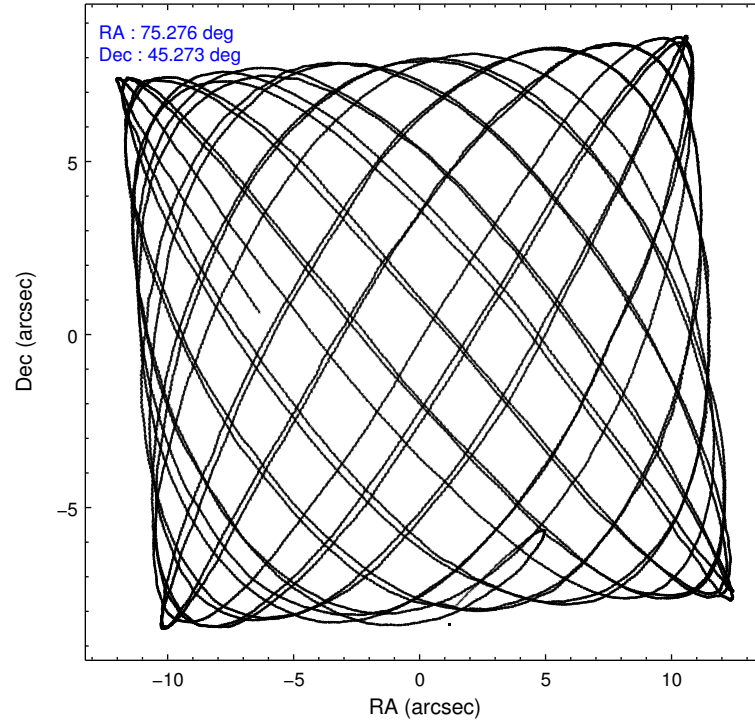
	ccd 7
level 1 events	19217
rejected events	7633
rejected %	39%

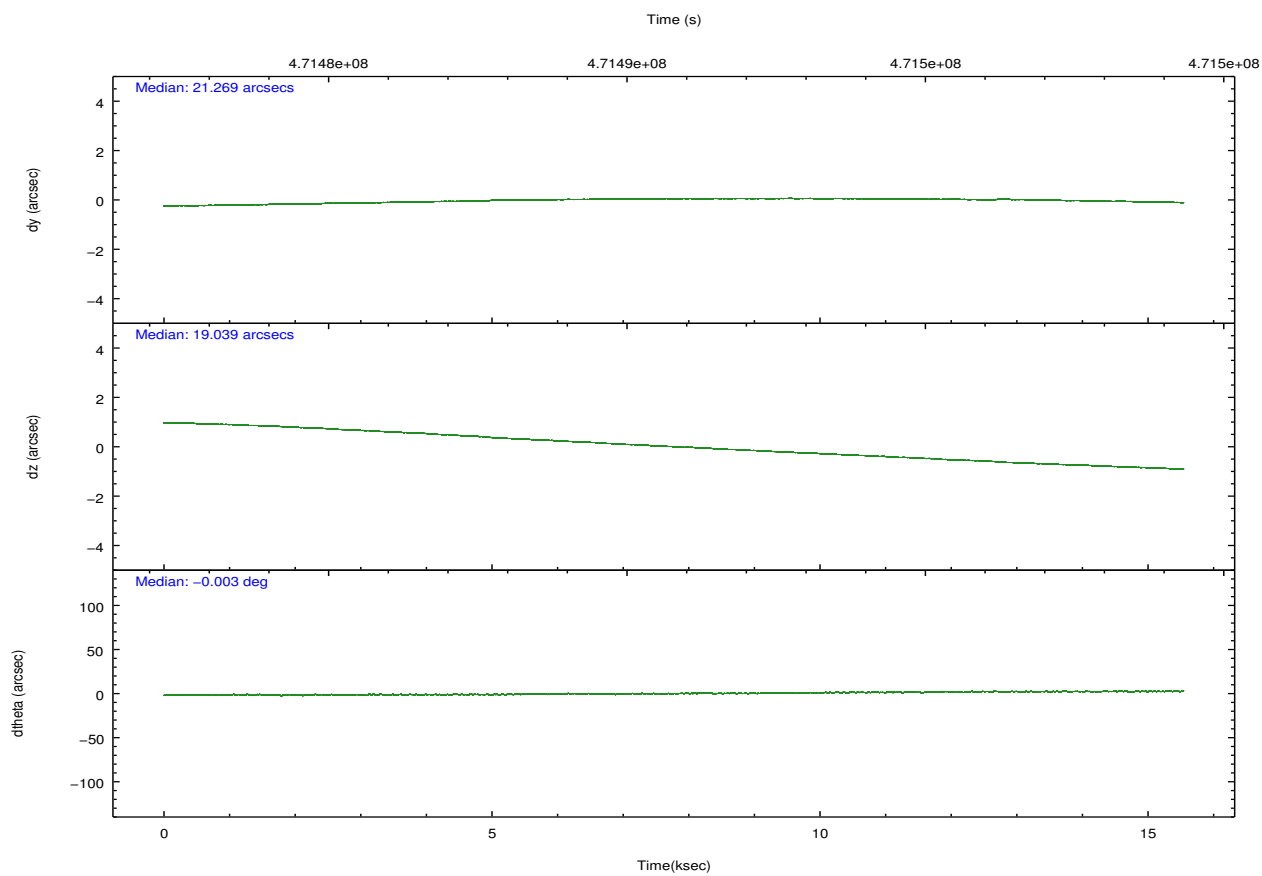
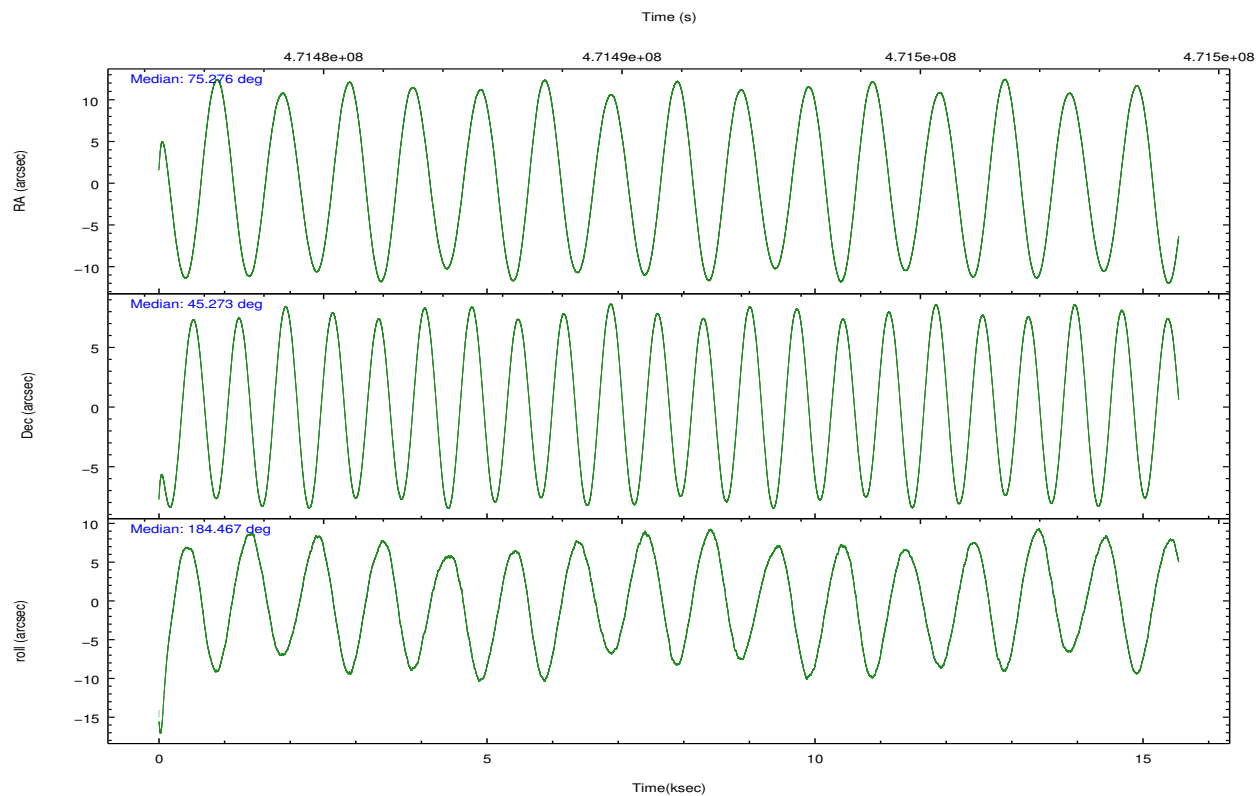
	ccd 7
grade 0 events	1865
	9%
grade 1 events	17
	0%
grade 2 events	2461
	12%
grade 3 events	1482
	7%
grade 4 events	1511
	7%
grade 5 events	1587
	8%
grade 6 events	4265
	22%
grade 7 events	6029
	31%

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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	75.307877	75.27609542416099	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	45.289205	45.27340399999042	Subarray start row	449	449
[deg] Pointing Roll	184.300484	184.479692726807	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	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	471483151.184000	471481977.56371			
Observation start date	2012-12-09T23:31:24	2012-12-09T23:12:57			
[s] Observation end time (MET)	471498551.184000	471499294.42714			
Observation end date	2012-12-10T03:48:04	2012-12-10T04:01:34			
Read mode	TIMED	TIMED			

2.3 Aspect



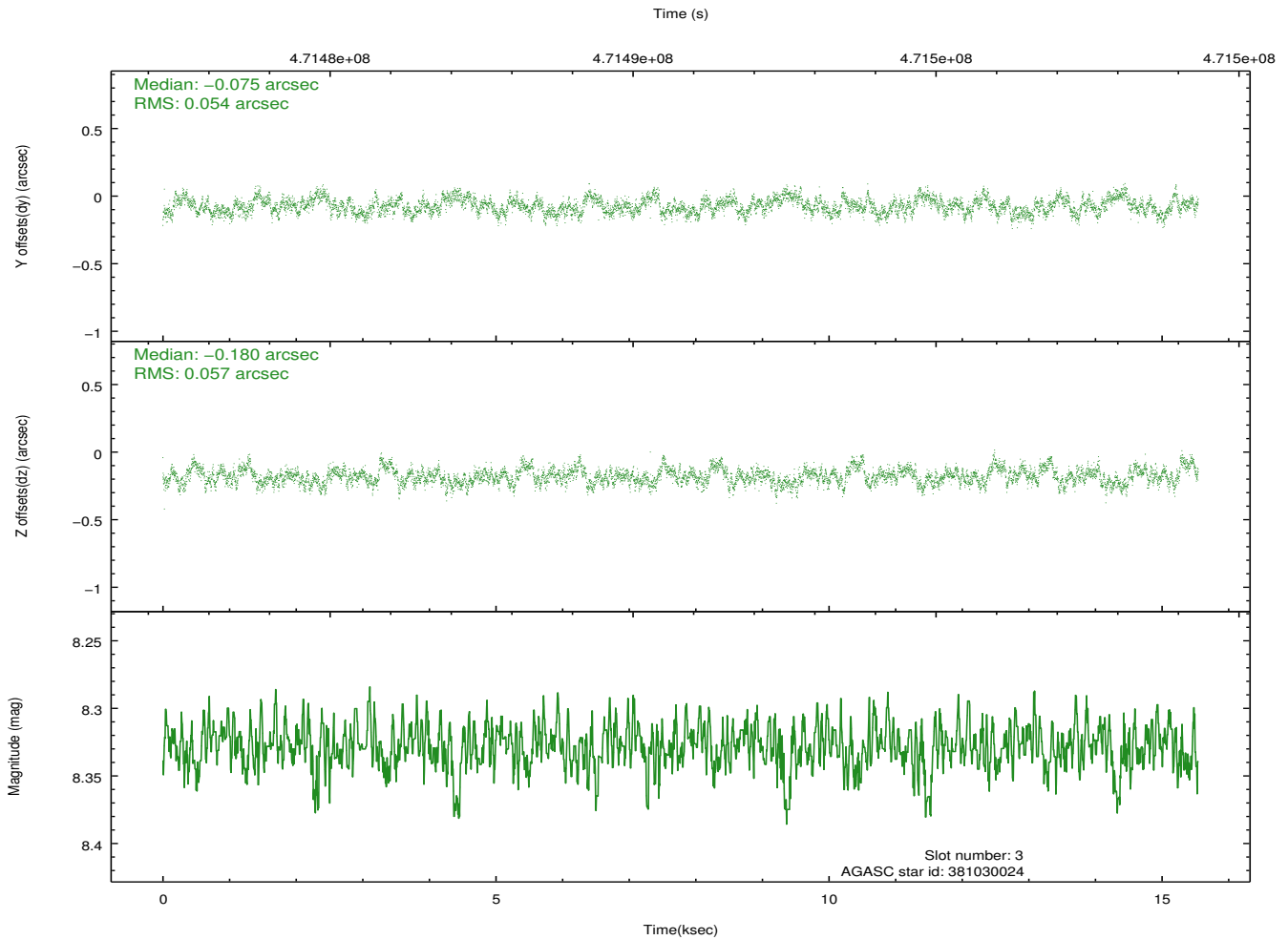
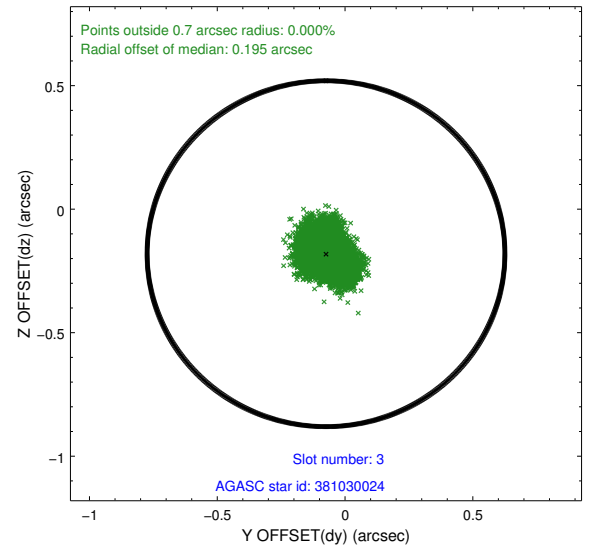
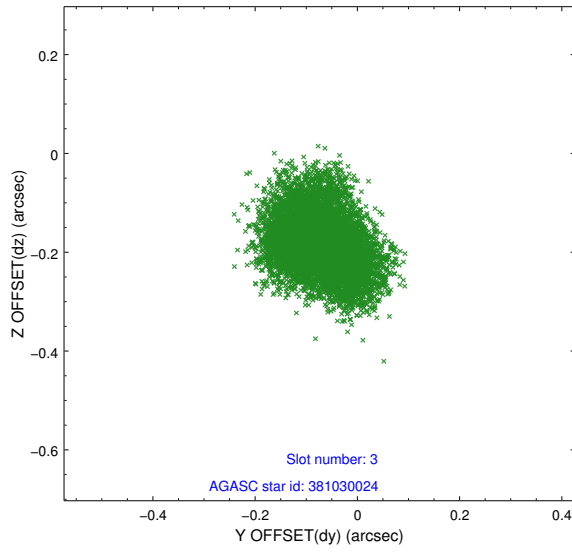


Slot Statistics

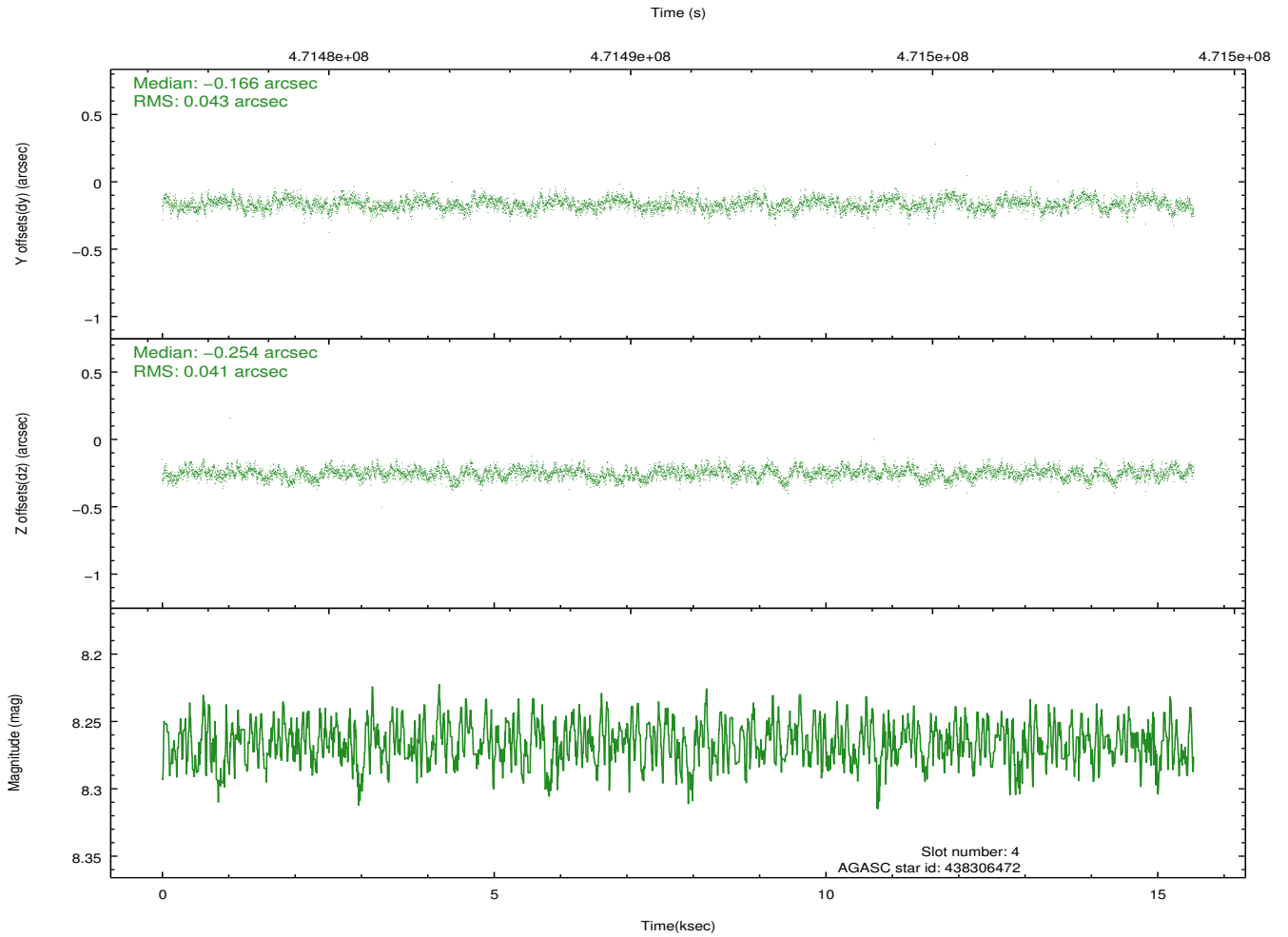
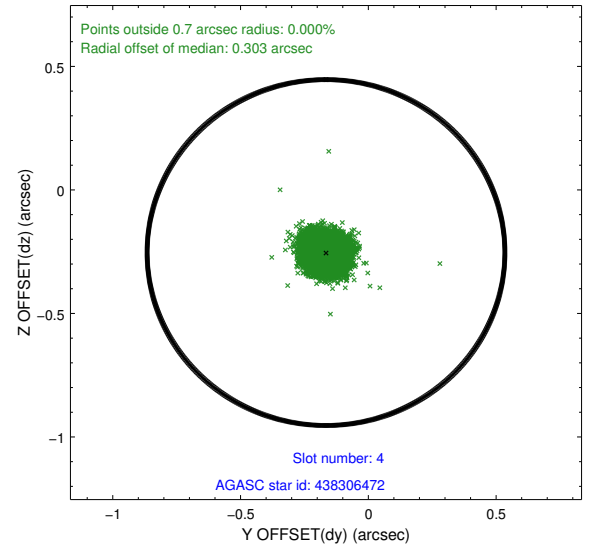
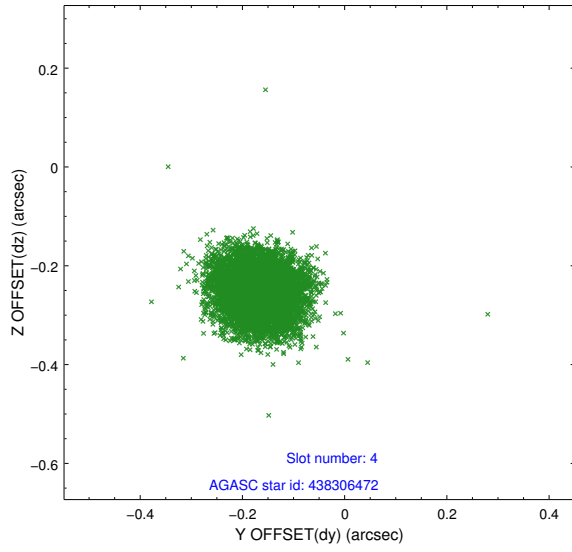
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.94	3792	-0.108	-0.030	0.020	0.031	0.000000	0.000000	-774.50	-1740.52
1	FID		ACIS-S-4	7.02	3792	0.221	0.060	0.006	0.011	0.000000	0.000000	2138.99	167.72
2	FID		ACIS-S-5	7.06	3792	-0.143	-0.021	0.020	0.031	0.000000	0.000000	-1826.99	161.67
3	GUIDE	used	381030024	8.33	7582	-0.075	-0.180	0.084	0.135	75.061936	44.874027	737.36	1442.99
4	GUIDE	used	438306472	8.27	7582	-0.166	-0.254	0.063	0.101	75.140877	45.253790	432.06	95.52
5	GUIDE	used	438307160	7.67	7583	-0.042	0.175	0.060	0.100	75.339715	45.888971	-240.60	-2145.96
6	GUIDE	used	438314176	8.40	7581	0.197	0.132	0.095	0.146	75.326509	45.446275	-88.80	-560.39
7	GUIDE	used	438307640	9.23	7578	0.083	0.125	0.109	0.172	75.288023	45.841930	-99.92	-1986.97

2.4 Star Slots

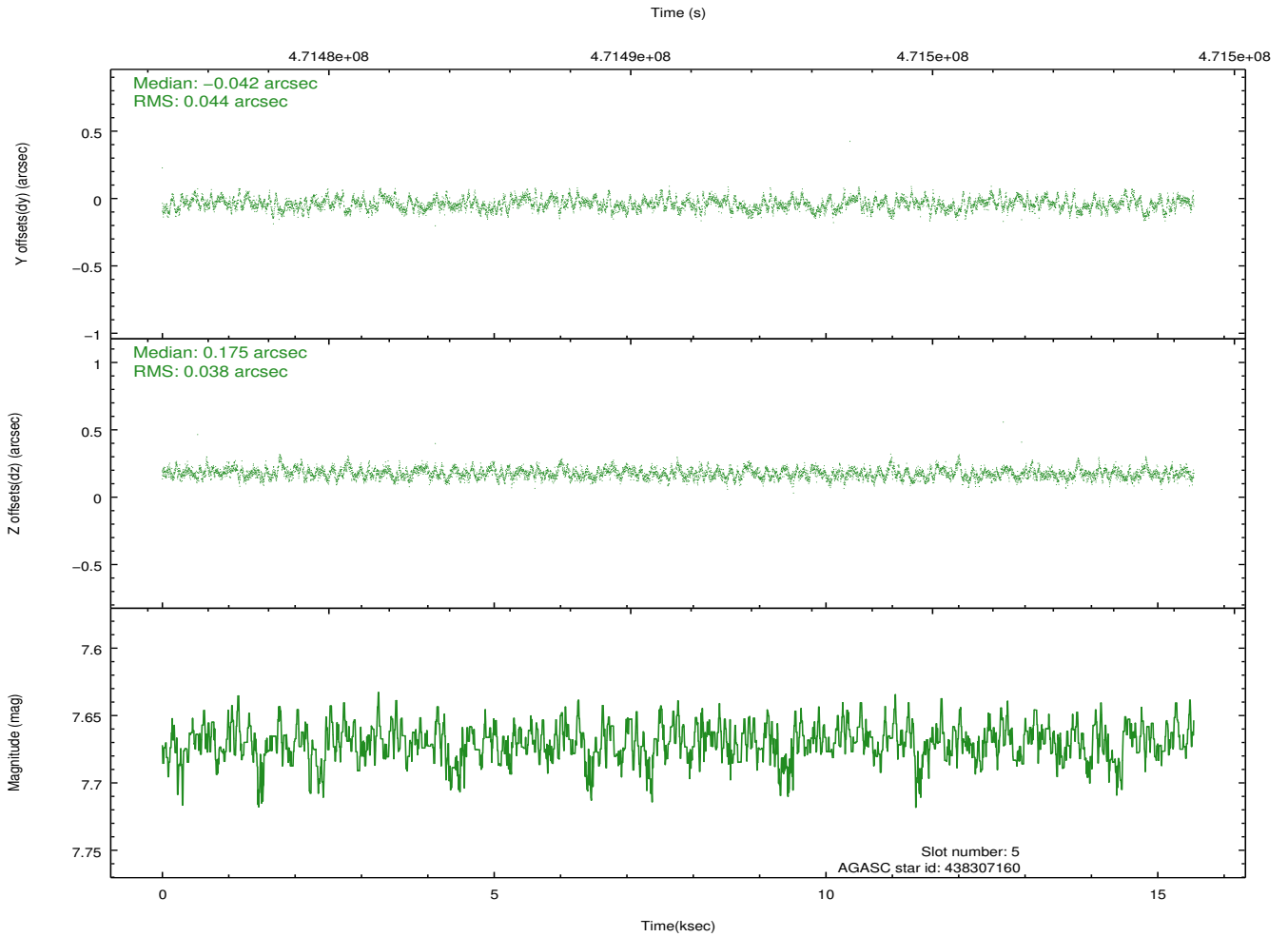
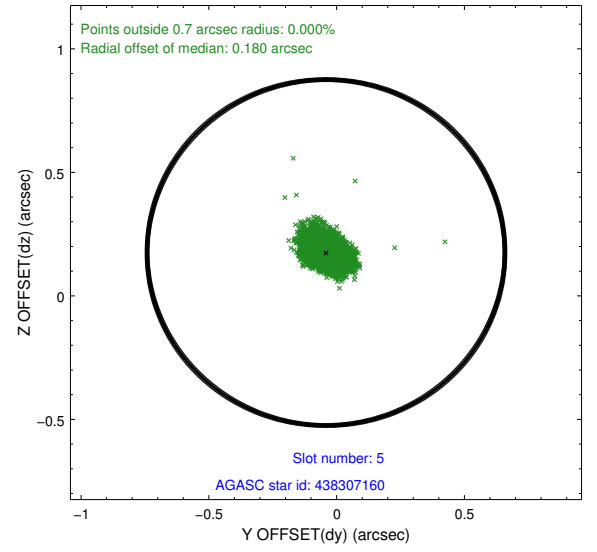
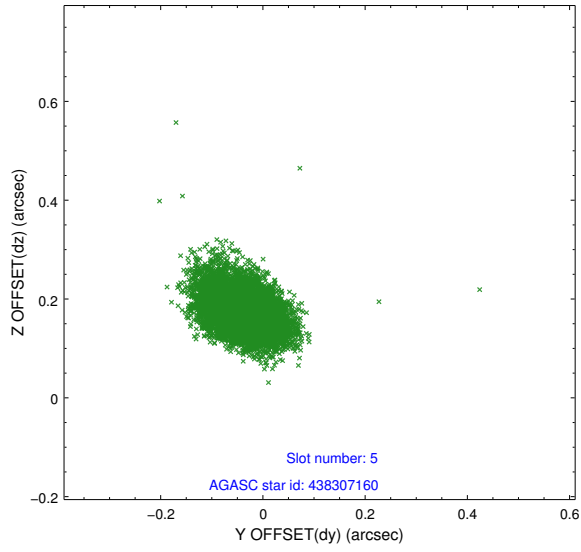
2.4.1 Slot 3



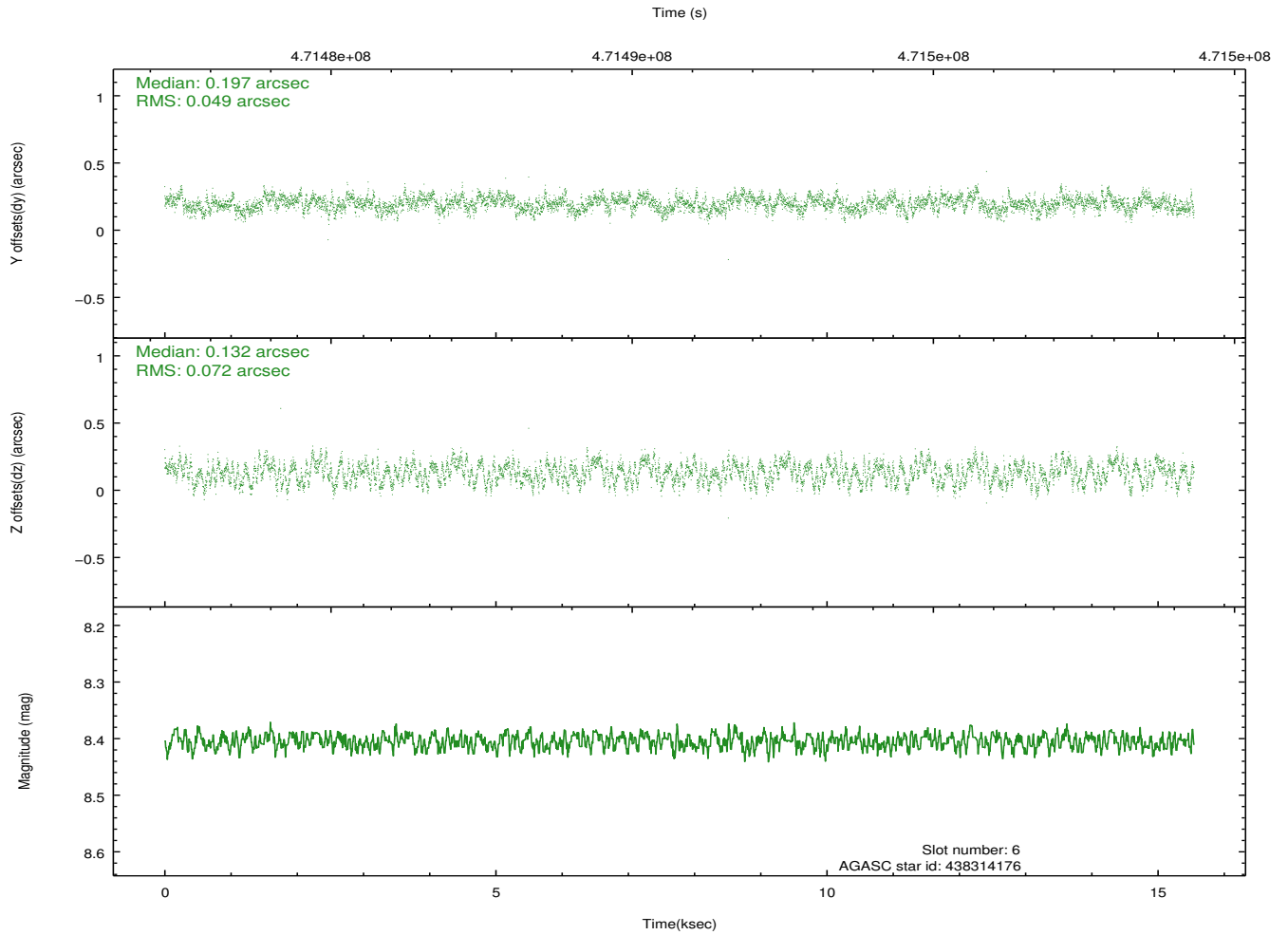
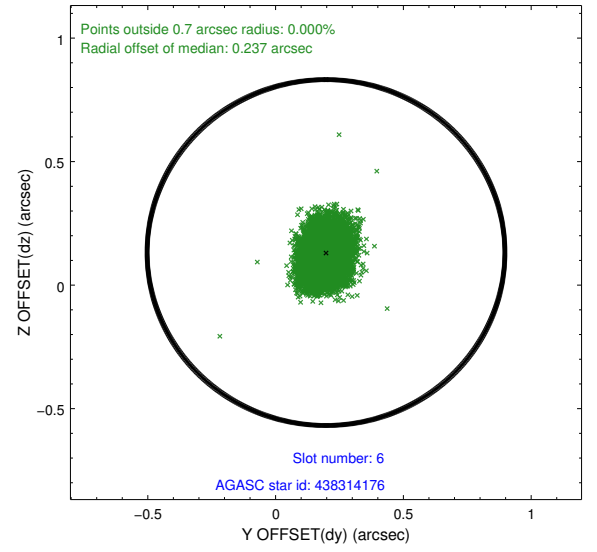
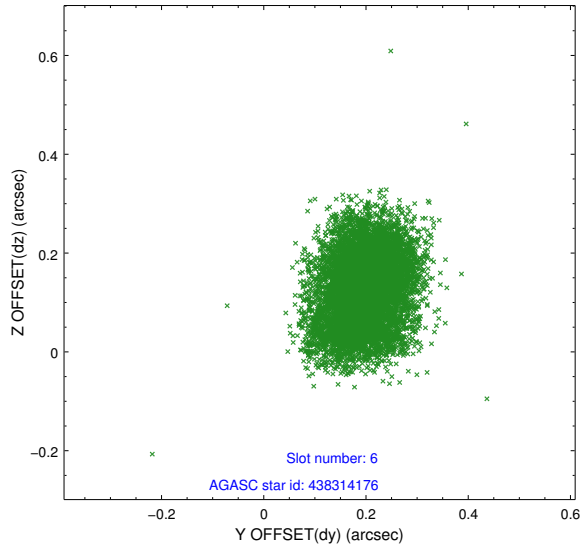
2.4.2 Slot 4



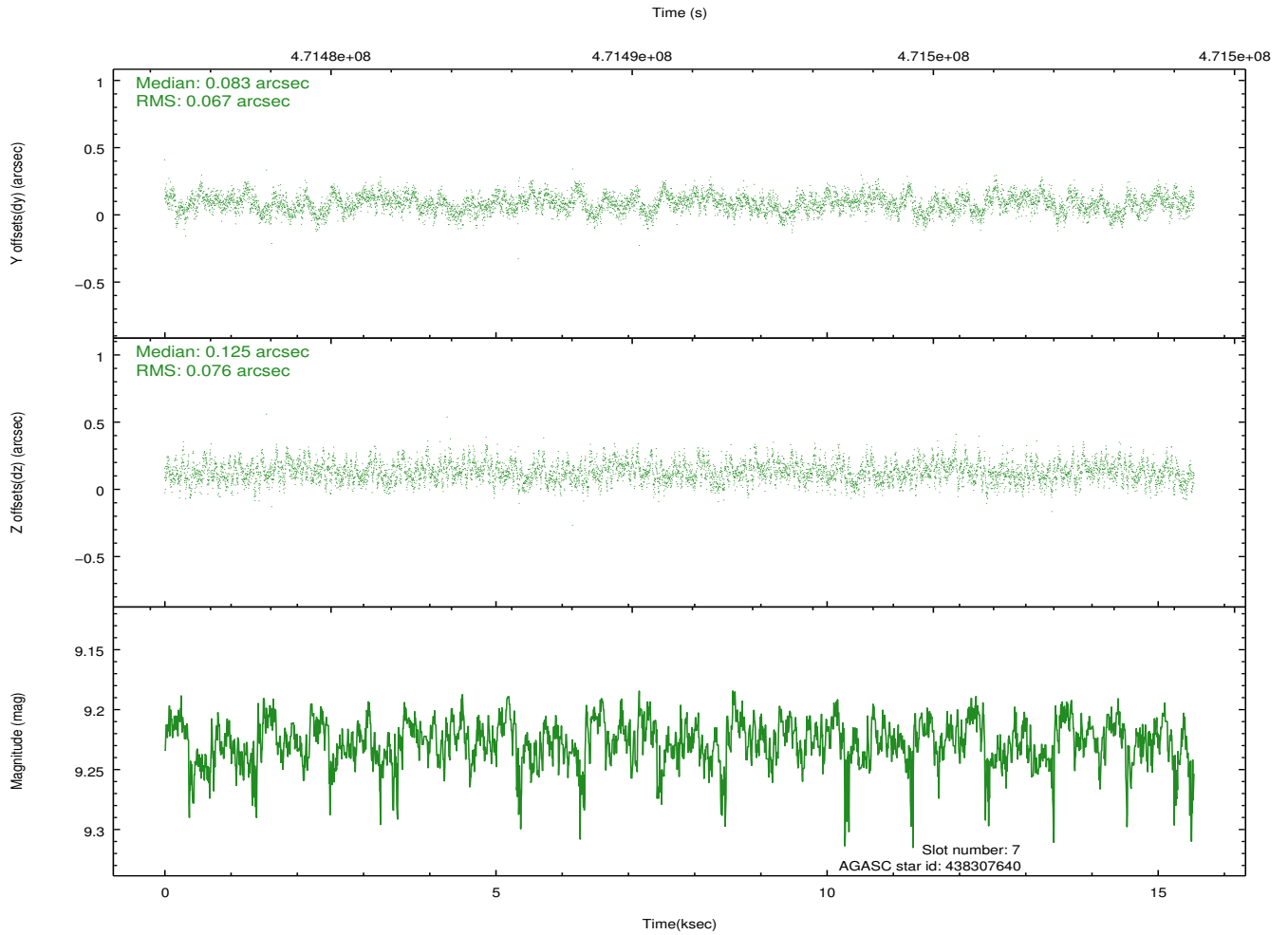
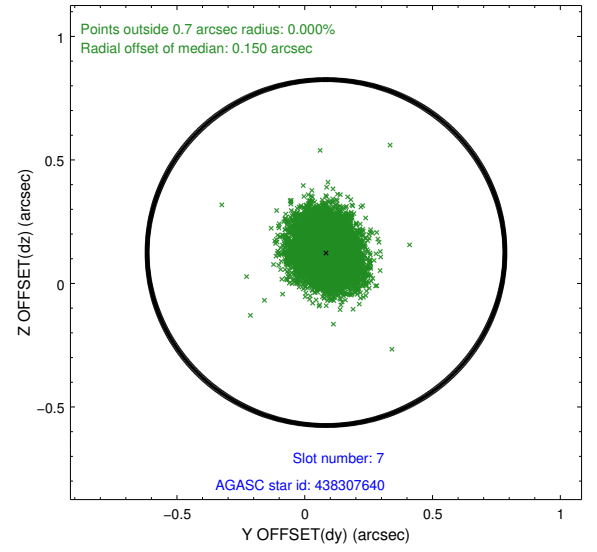
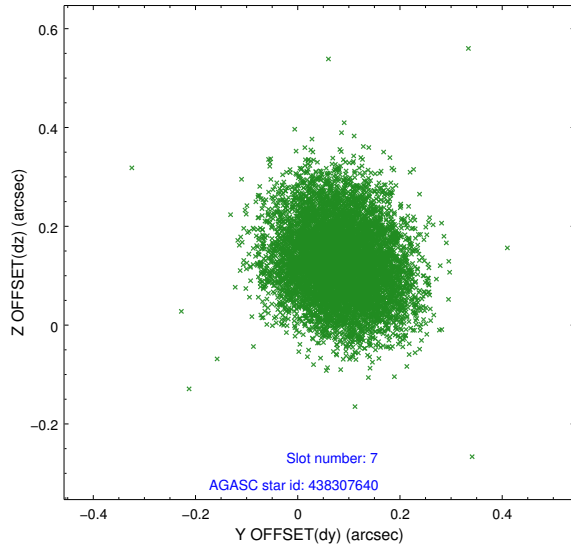
2.4.3 Slot 5



2.4.4 Slot 6

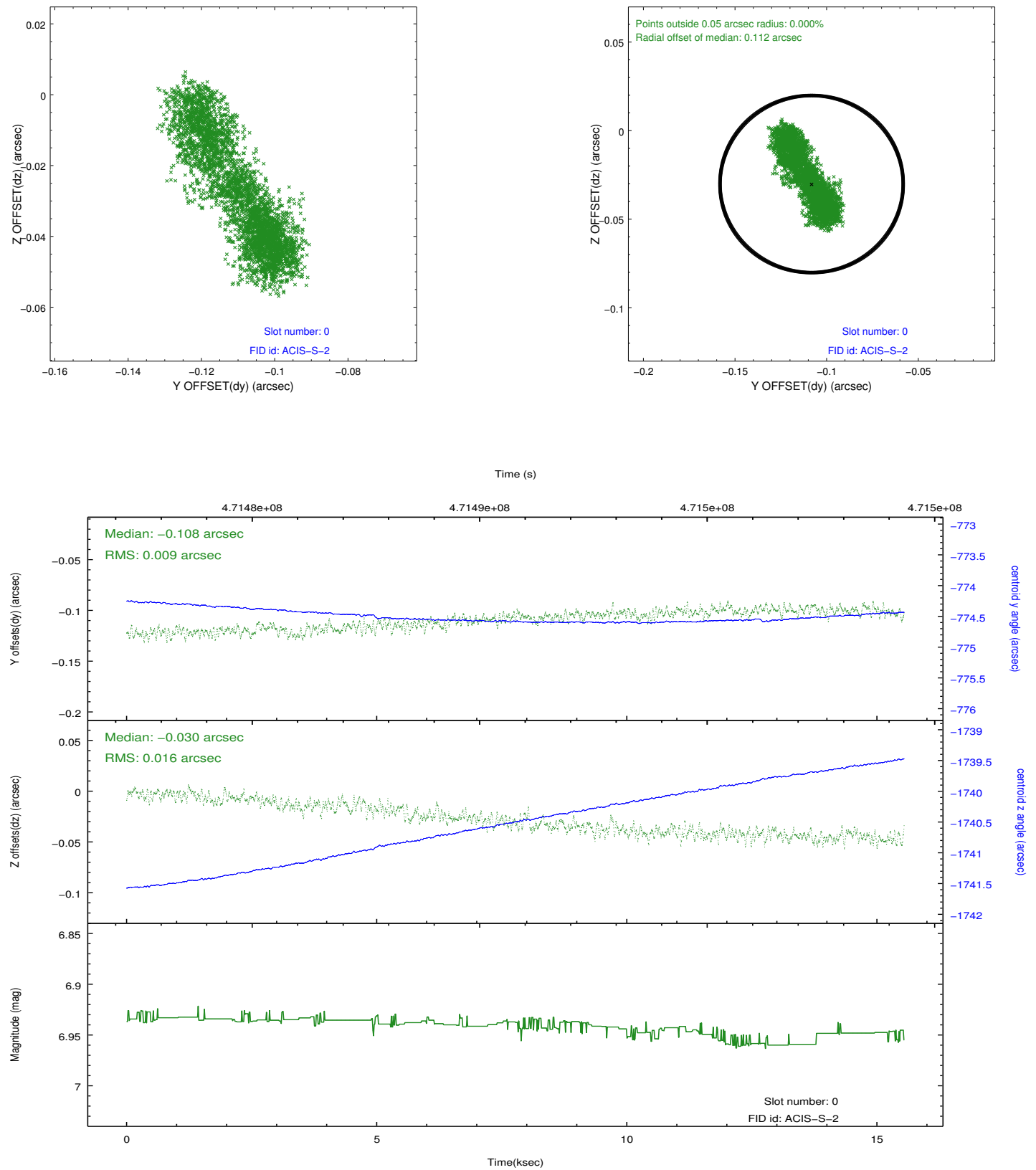


2.4.5 Slot 7

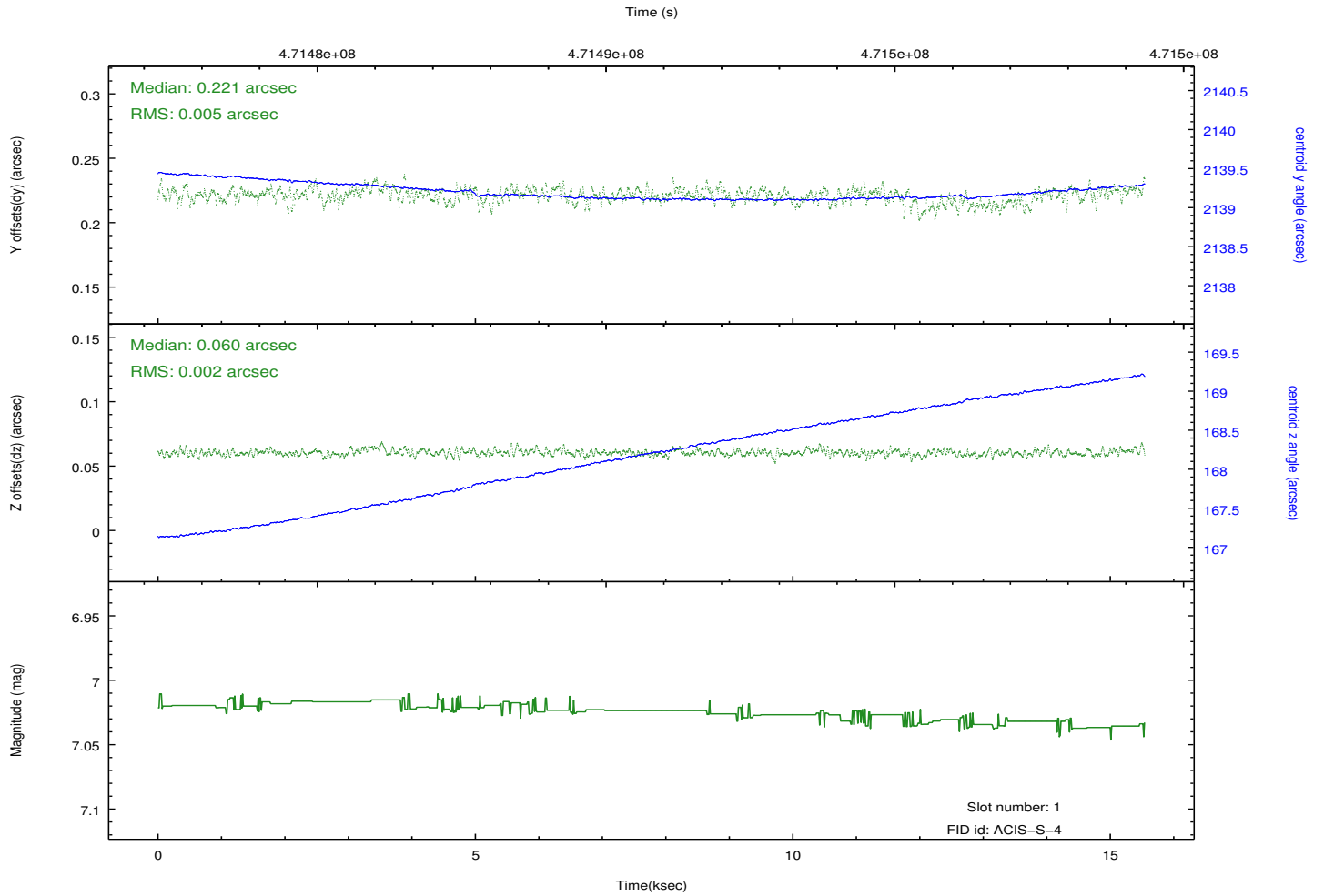
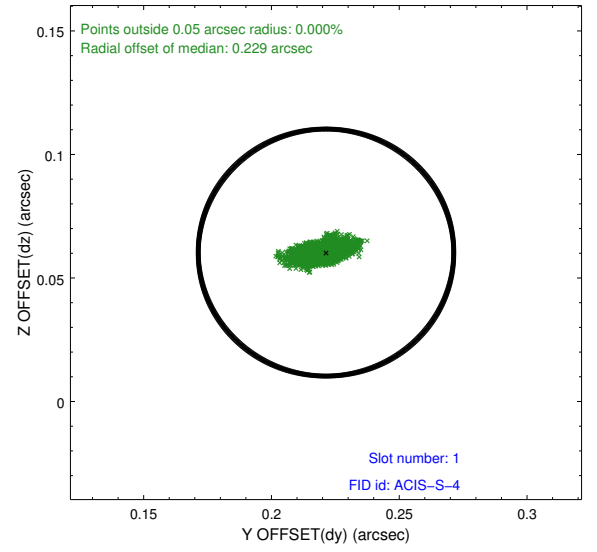
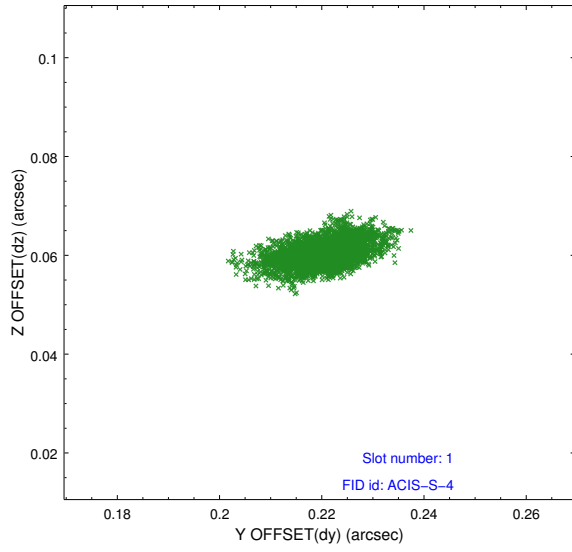


2.5 FID Slots

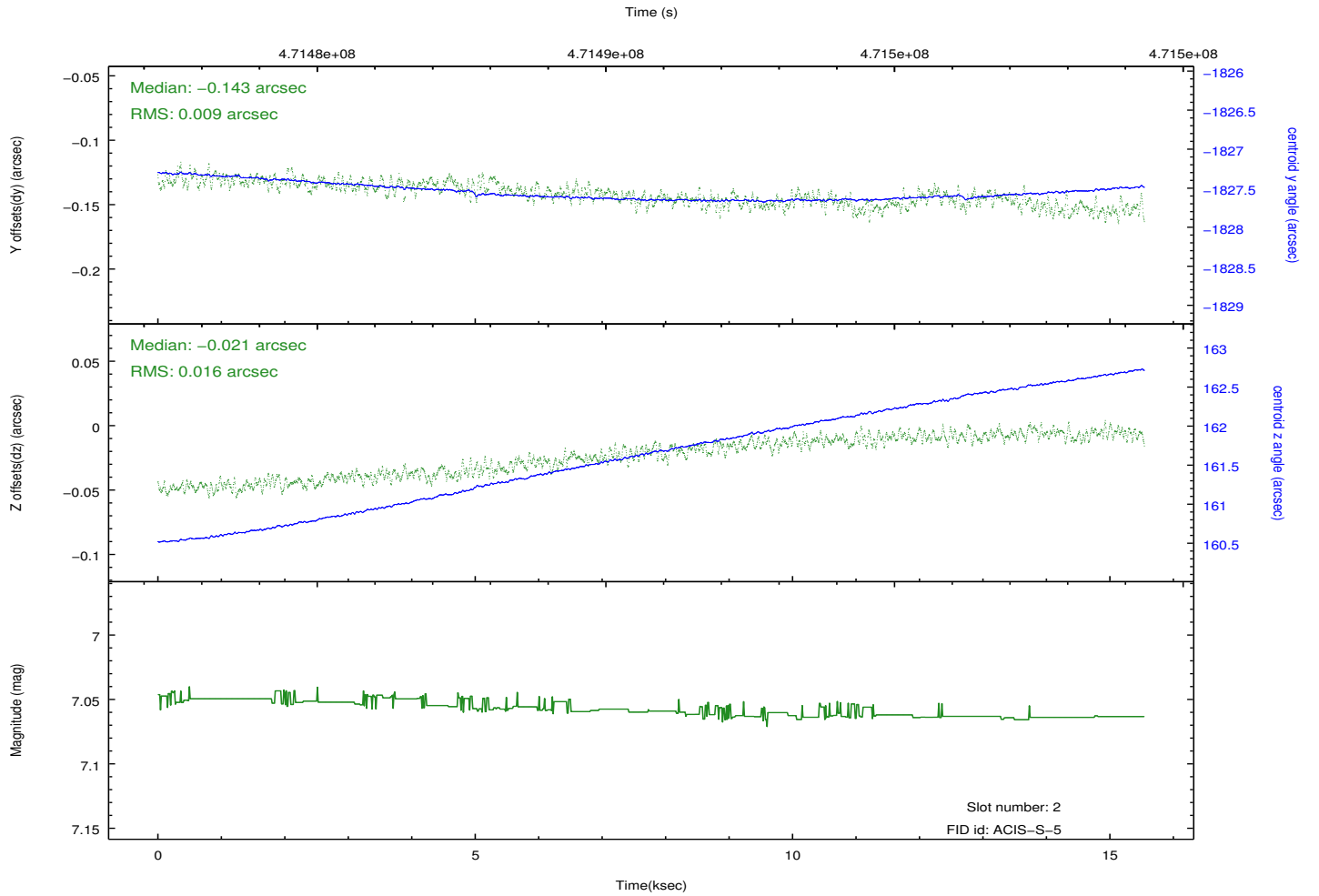
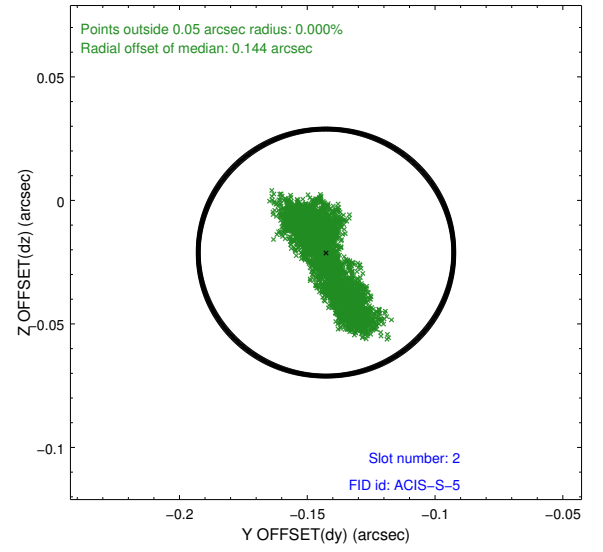
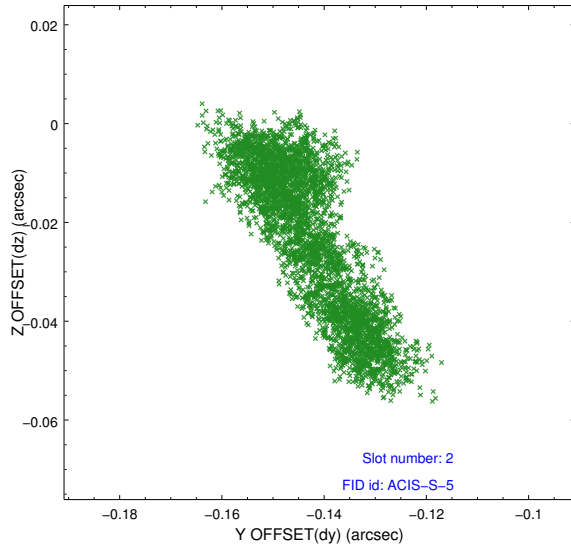
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.46959907794

A.2 Comments

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.