

V&V Reference Report

L2 ASCDS Version : 10.2.1

Observation 15870 - L2 Version 2
Chandra X-Ray Center

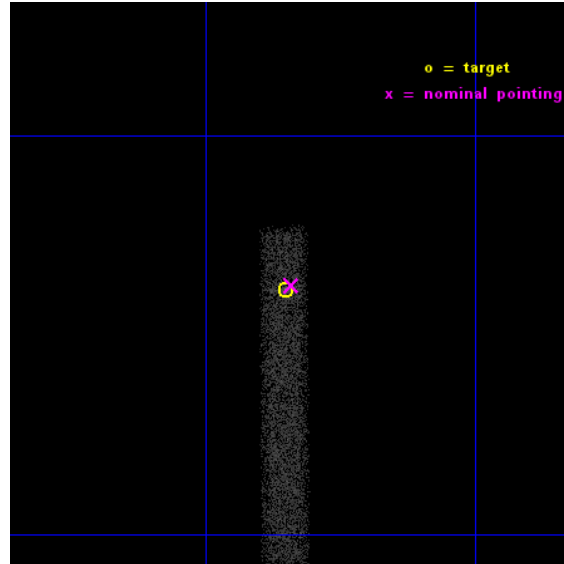
L2 Processing Date : Dec 10 2014

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

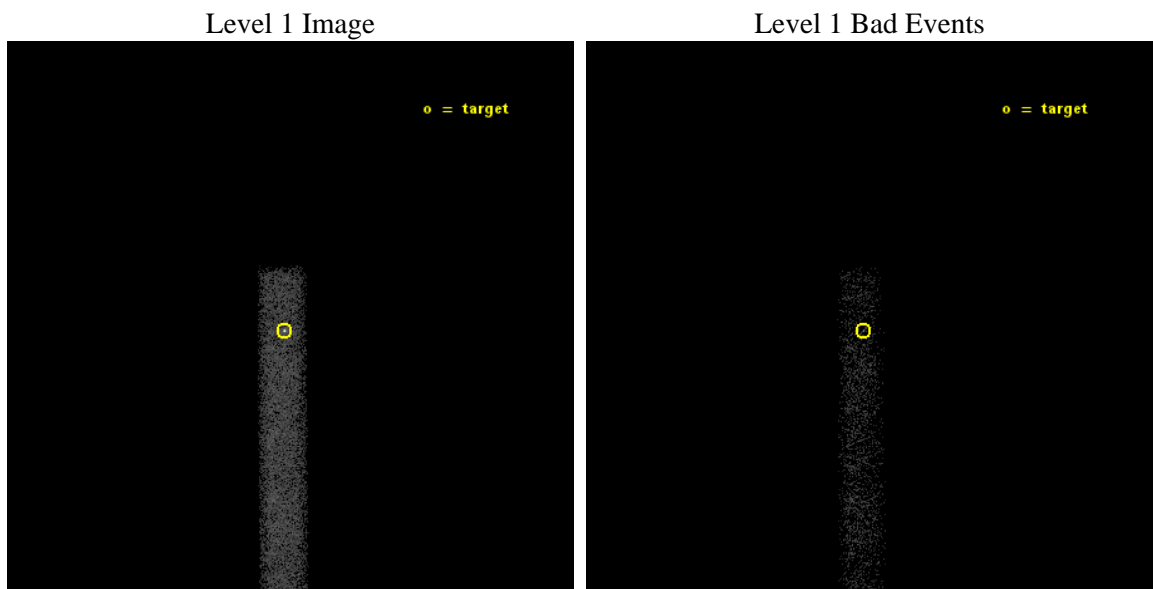
seq_num	502103	Sequence number
obs_id	15870	Observation id
title	Unveiling the nature of cyclical behavior in the period evolution of the Anomalous X ray Pulsar XTE J1810-197	Proposal title
observer	Dr. Federico Bernardini	Principal investigator
object	XTEJ 1810-197	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	272.462917	Observer's specified target RA [deg]
dec_targ	-19.731083	Observer's specified target Dec [deg]
ra_nom	272.46019563547	Nominal RA [deg]
dec_nom	-19.72942525173	Nominal Dec [deg]
roll_nom	89.616717057692	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20068.682142675	Sum of GTIs [s]
livetime	18201.235391506	Livetime [s]
ontime7	20068.682142675	Sum of GTIs [s]
l2events	12603	Number of level 2 events



2 OBI

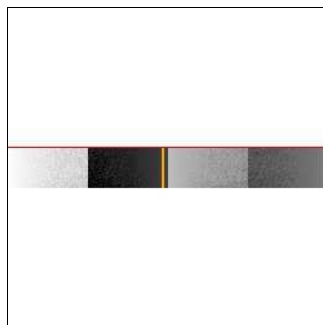
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	20000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	20068.682142675	Sum of GTIs [s]
caldsver	4.6.4	 	ontime7	20068.682142675	Sum of GTIs [s]
date	2014-12-10T11:29:36	Date and time of file creation	l1events	22117	Number of level 1 events
revision	2	Processing version of data			

2.1.4 Events

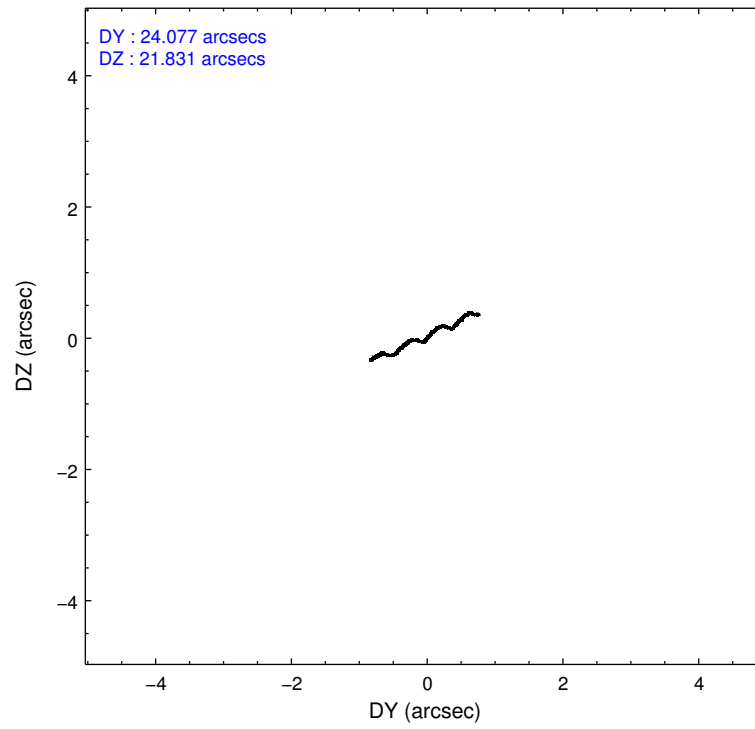
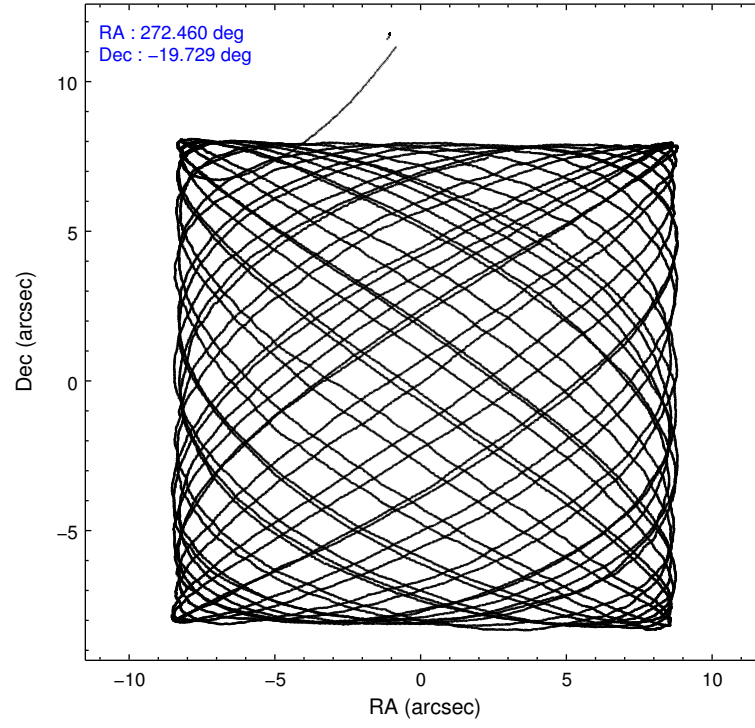
	ccd 7
level 1 events	22117
rejected events	9142
rejected %	41%

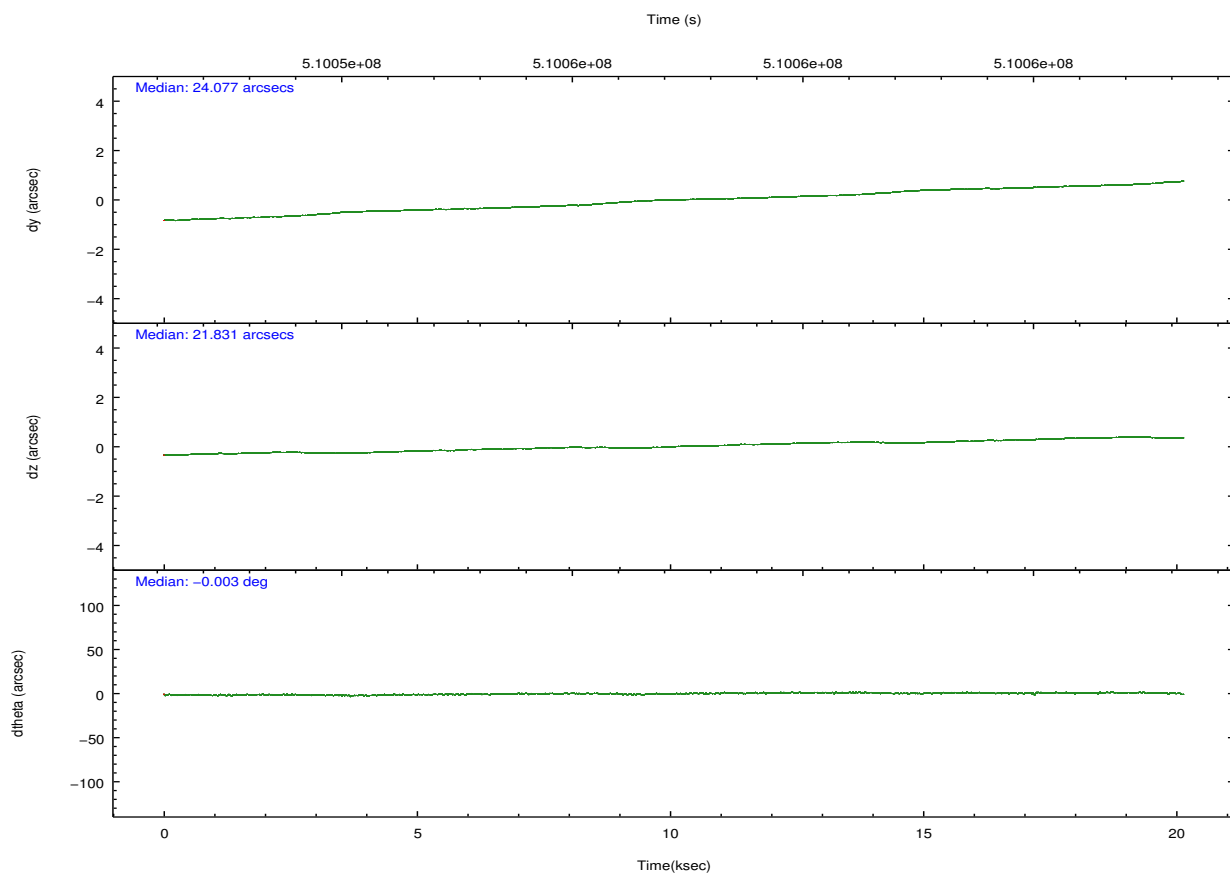
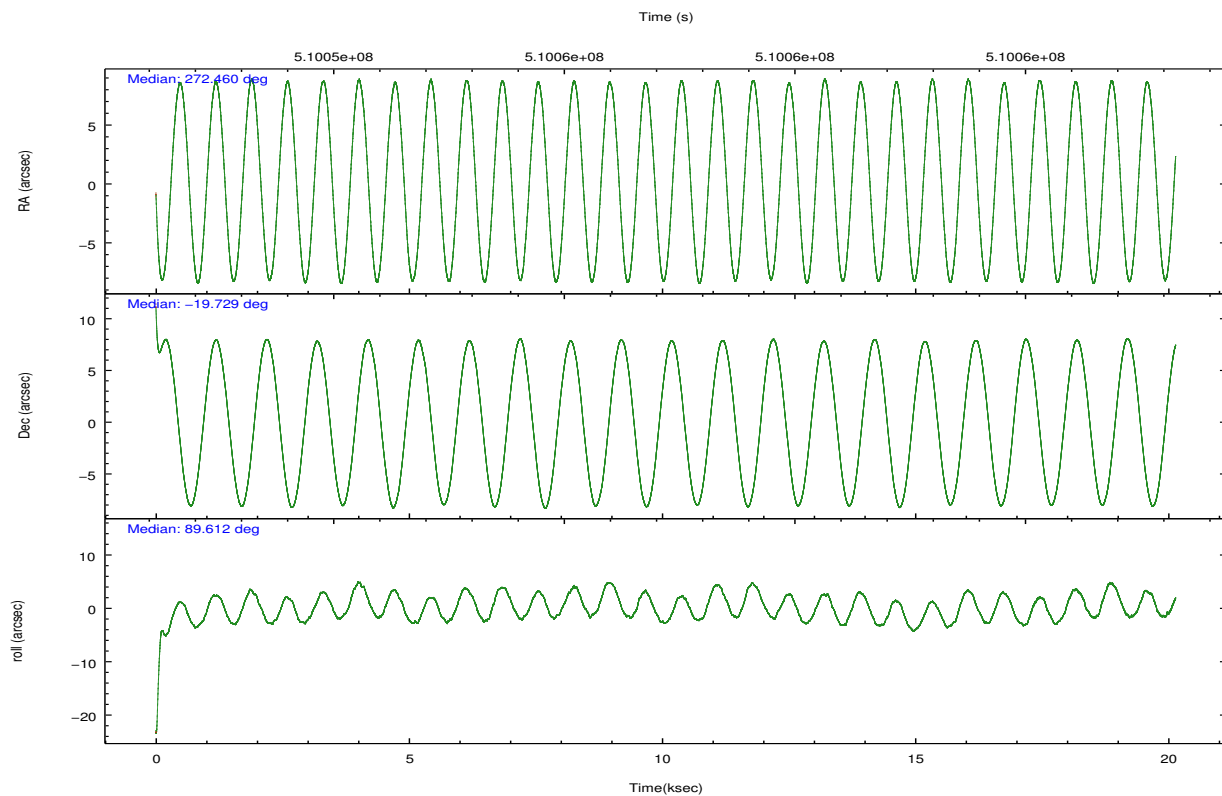
	ccd 7
grade 0 events	2122
	9%
grade 1 events	41
	0%
grade 2 events	3114
	14%
grade 3 events	1545
	6%
grade 4 events	1586
	7%
grade 5 events	1762
	7%
grade 6 events	4608
	20%
grade 7 events	7339
	33%

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	272.474916	272.4601956354668	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-19.753023	-19.72942525173014	Subarray start row	449	449
[deg] Pointing Roll	89.465075	89.616717057692	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)	510047271.184000	510046149.16336			
Observation start date	2014-03-01T07:46:44	2014-03-01T07:29:09			
[s] Observation end time (MET)	510067271.184000	510068215.87708			
Observation end date	2014-03-01T13:20:04	2014-03-01T13:36:55			
Read mode	TIMED	TIMED			

2.3 Aspect



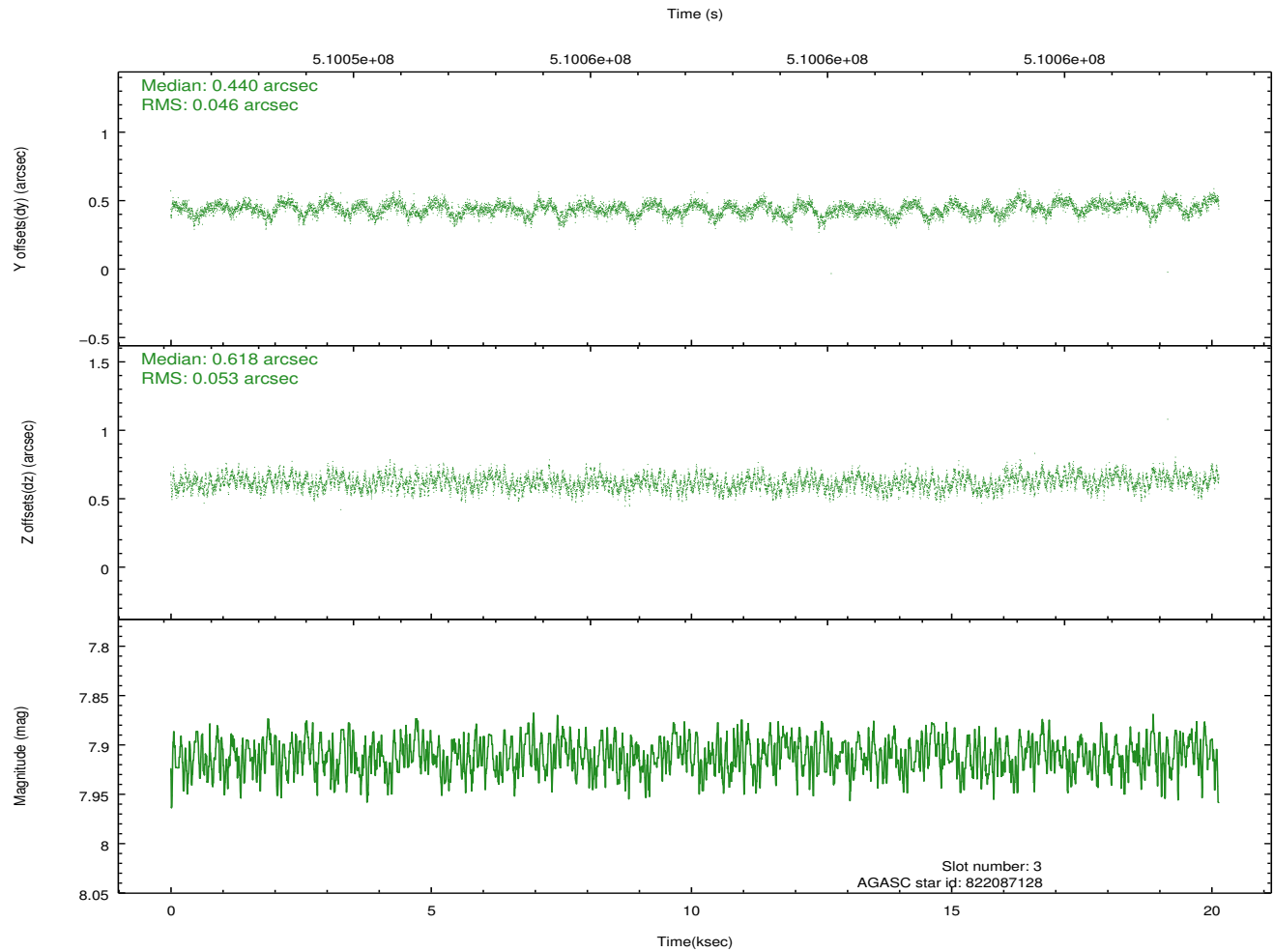
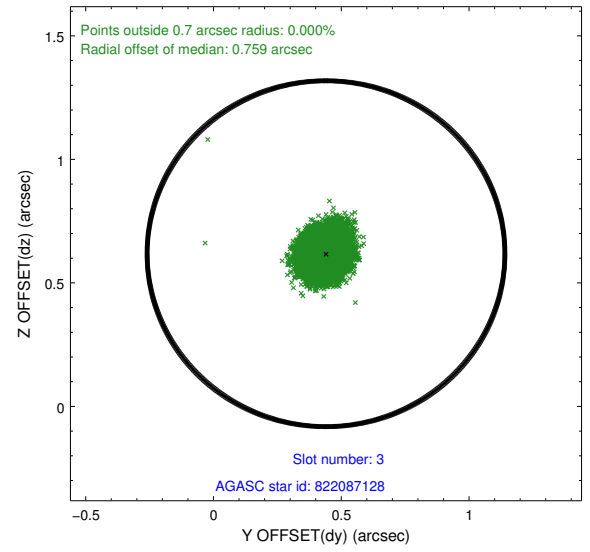
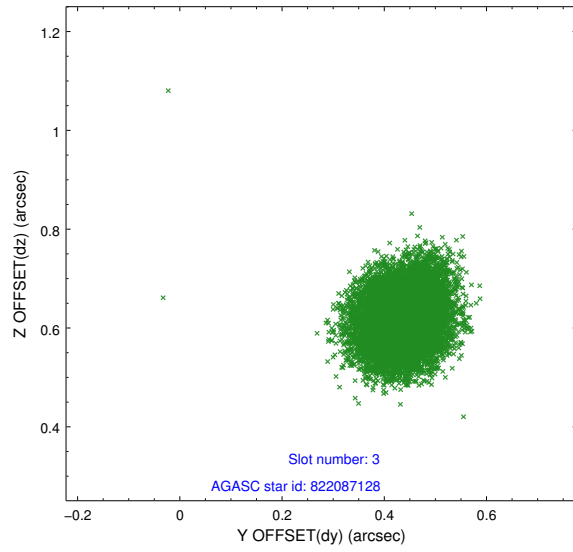


Slot Statistics

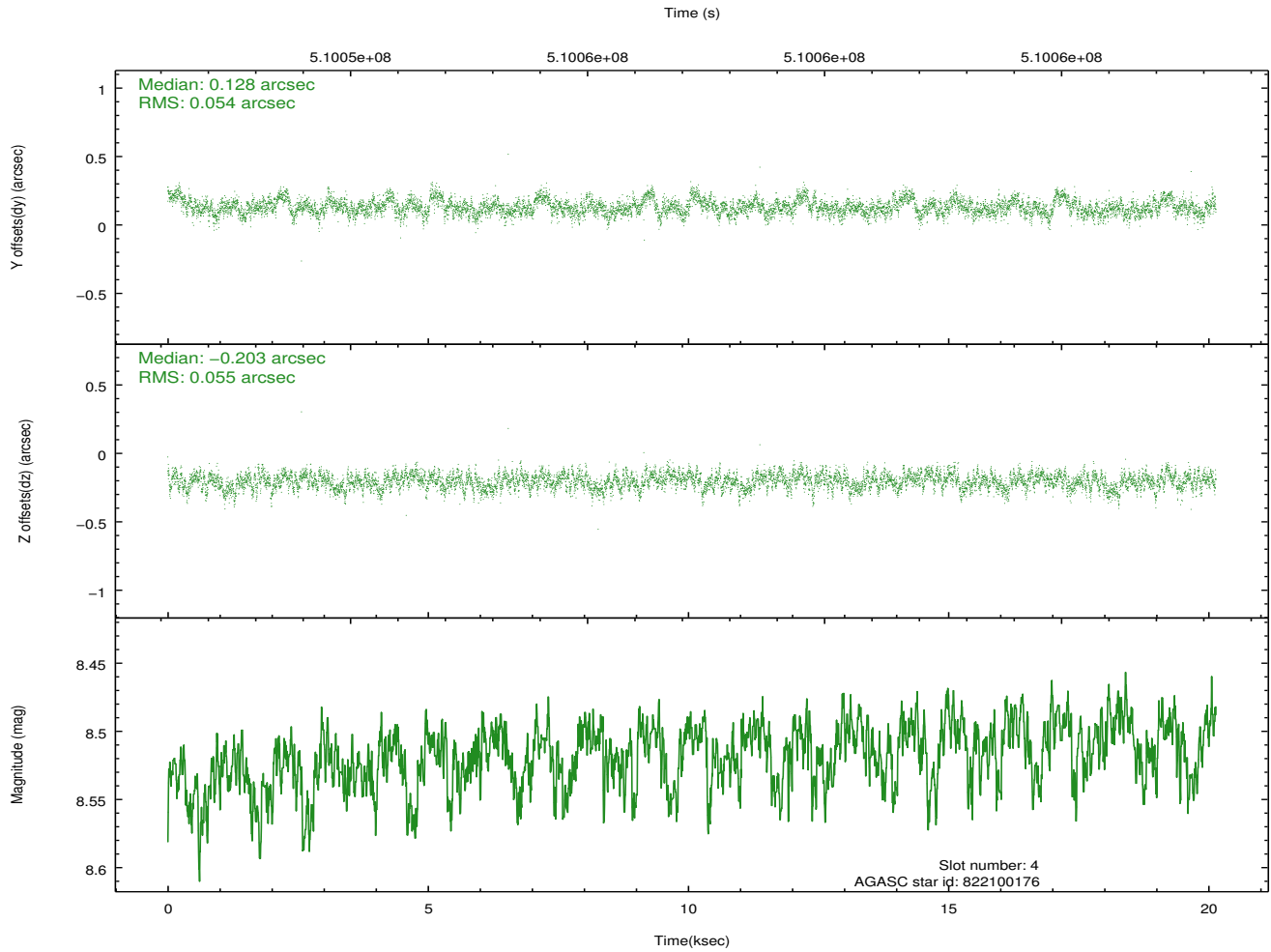
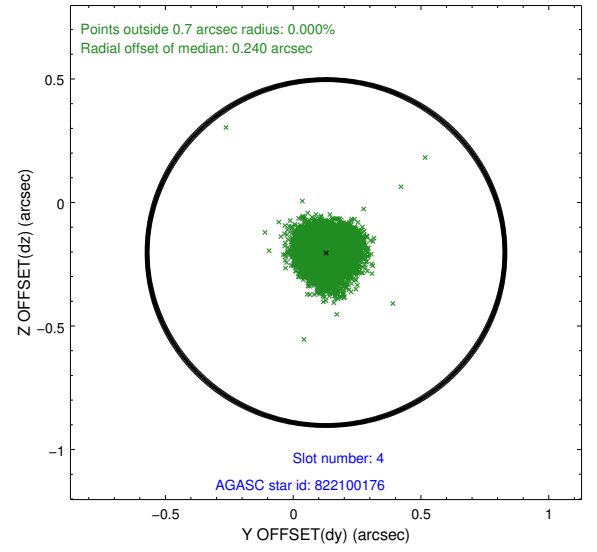
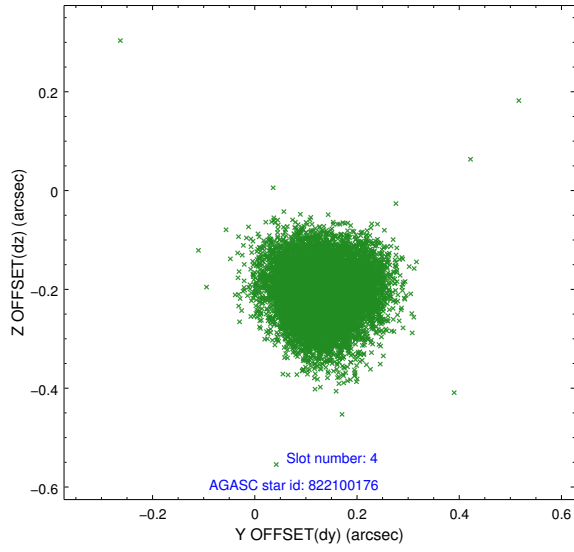
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.93	4912	-0.126	-0.007	0.017	0.026	0.000000	0.000000	-777.41	-1743.36
1	FID		ACIS-S-4	7.02	4913	0.278	0.063	0.013	0.029	0.000000	0.000000	2136.22	164.94
2	FID		ACIS-S-5	7.05	4913	-0.181	-0.047	0.008	0.016	0.000000	0.000000	-1830.04	158.79
3	GUIDE	used	822087128	7.91	9826	0.440	0.618	0.075	0.119	272.956072	-20.371006	-2211.18	-1644.17
4	GUIDE	used	822100176	8.52	9822	0.128	-0.203	0.083	0.130	272.112888	-19.868886	-429.92	1221.38
5	GUIDE	used	822102416	7.50	9823	0.046	-0.160	0.068	0.118	272.173216	-20.087156	-1213.23	1008.68
6	GUIDE	used	820401112	7.88	9826	-0.586	-0.583	0.073	0.125	271.884761	-19.293988	1629.57	2020.27
7	GUIDE	used	822096760	8.05	9824	-0.029	0.322	0.092	0.139	272.830526	-19.438690	1141.91	-1196.00

2.4 Star Slots

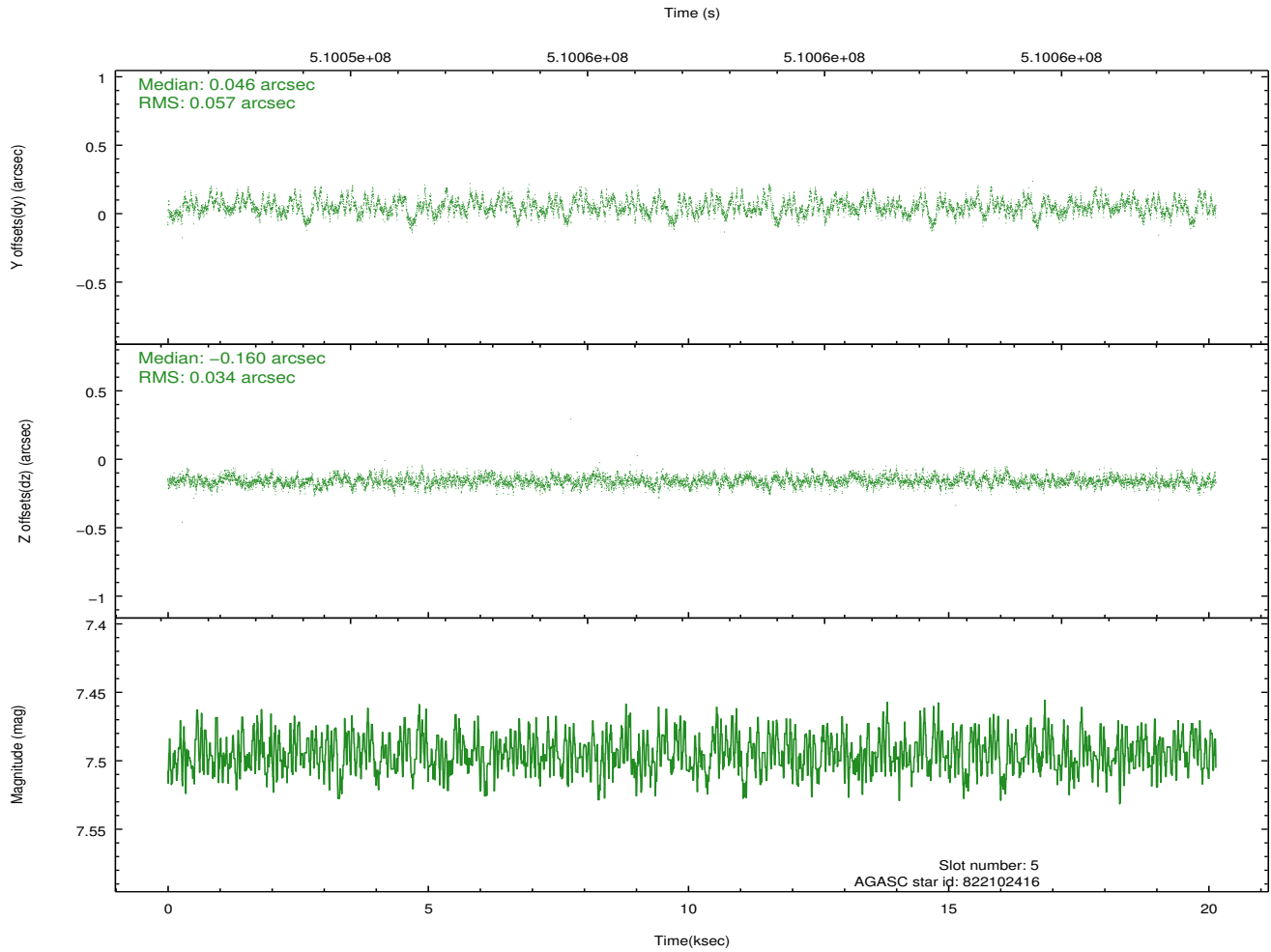
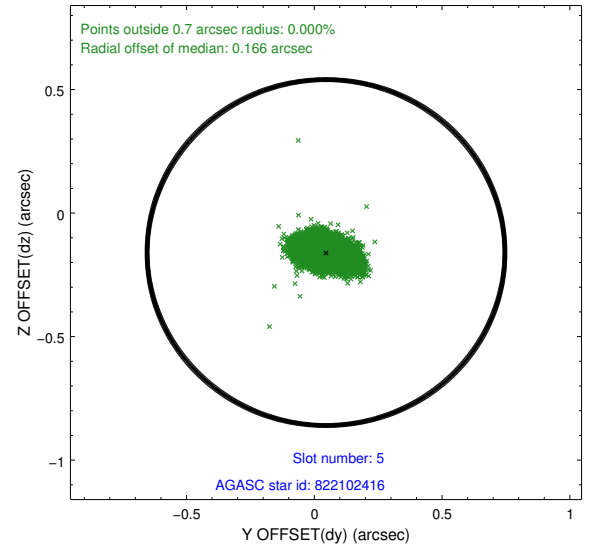
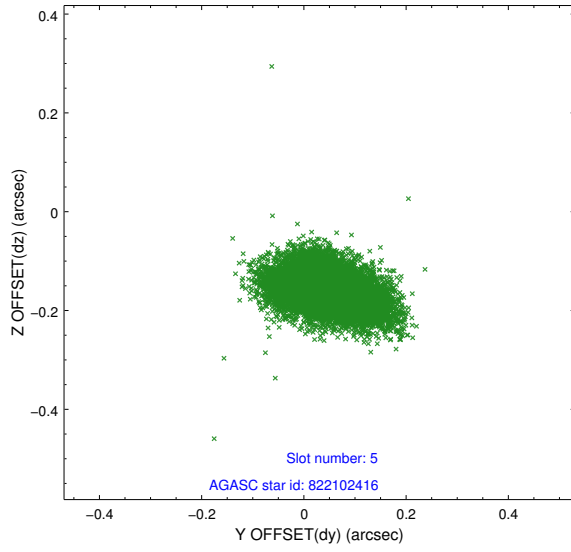
2.4.1 Slot 3



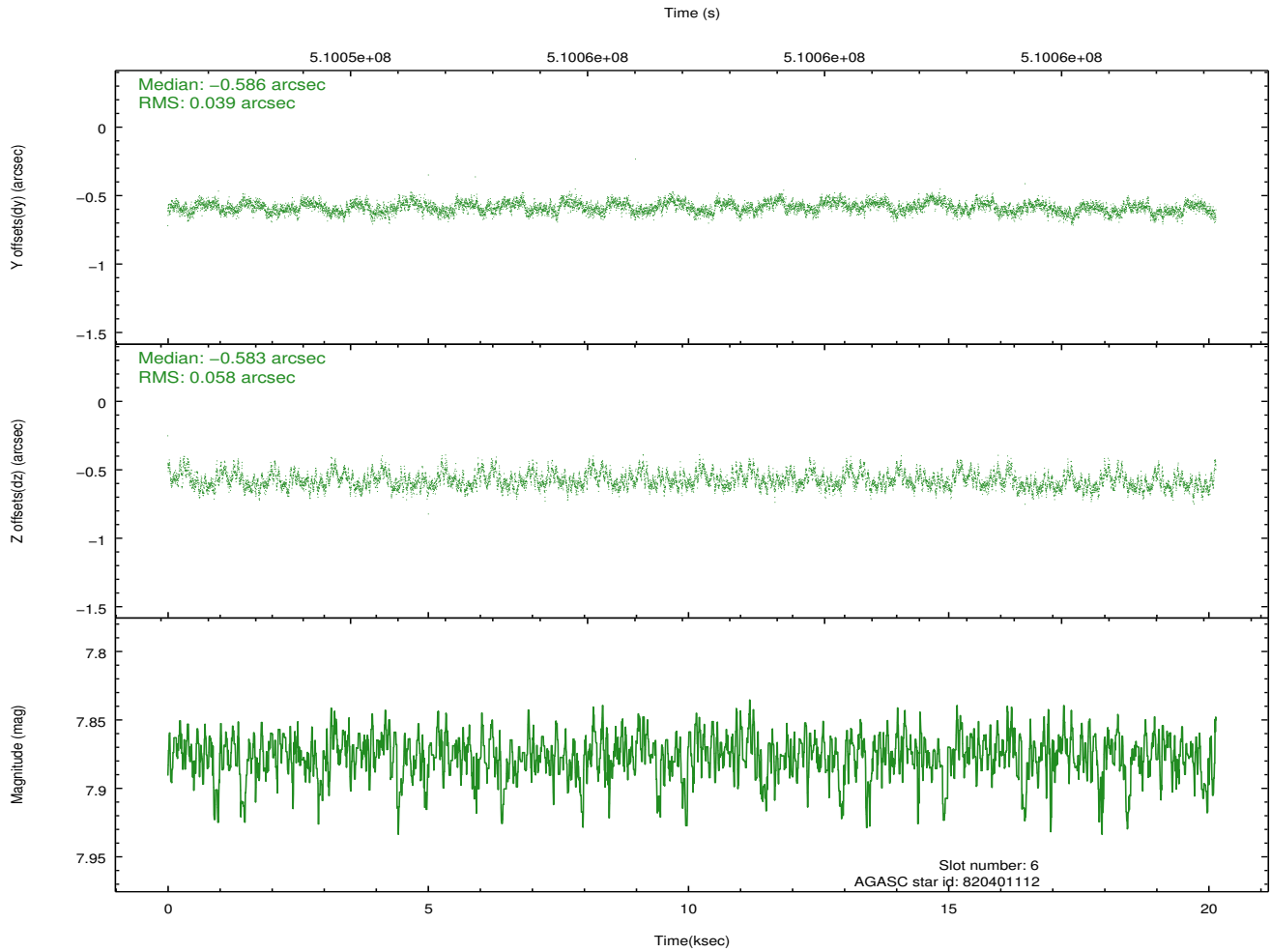
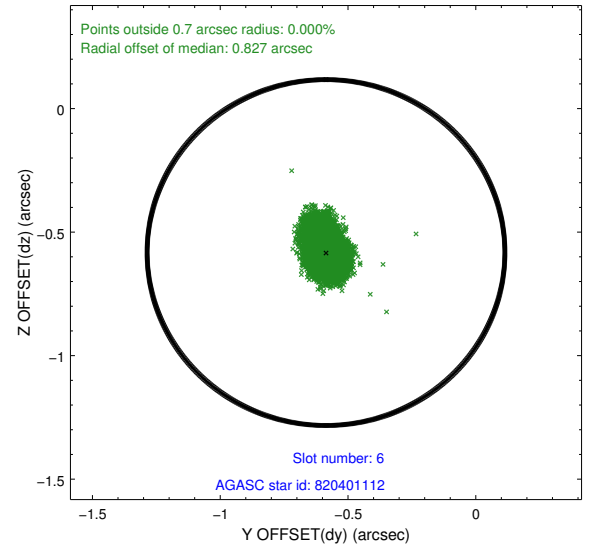
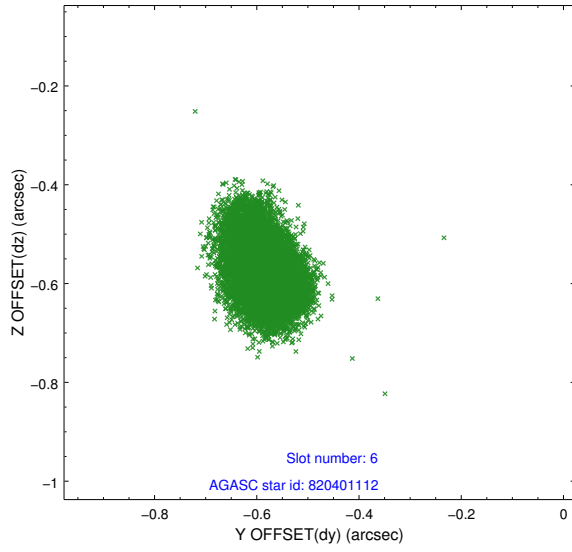
2.4.2 Slot 4



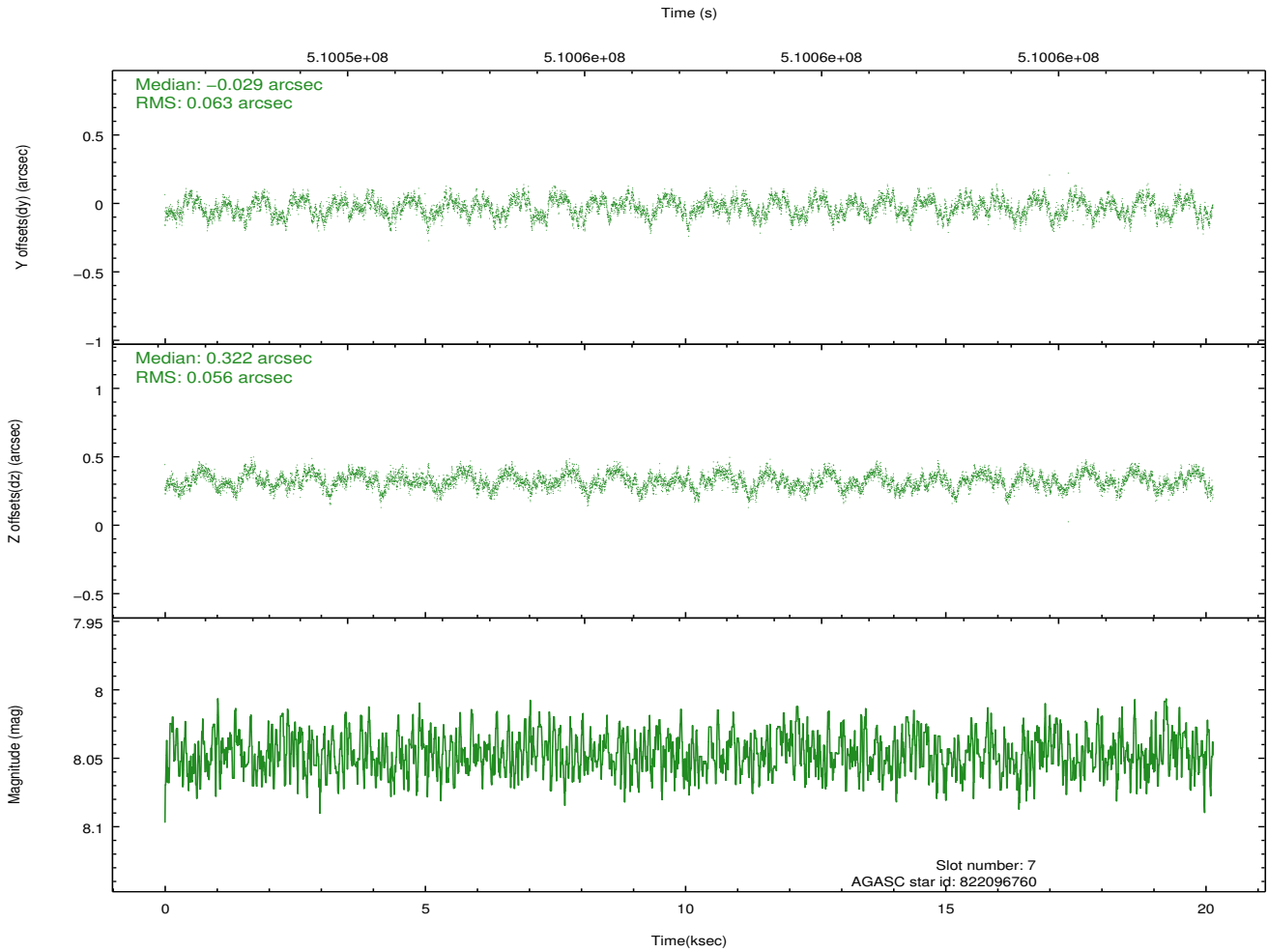
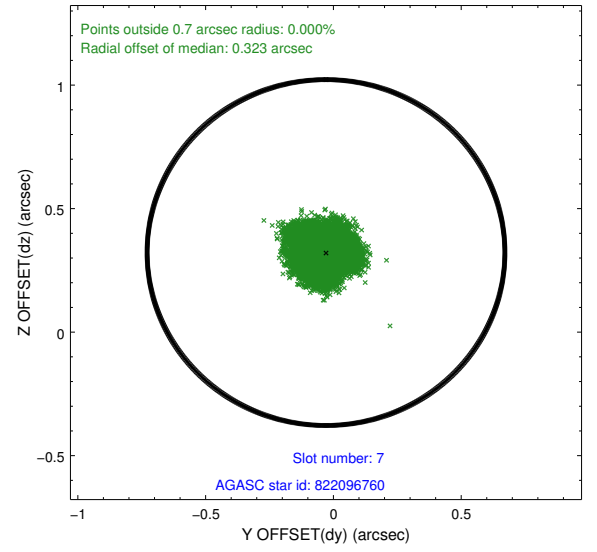
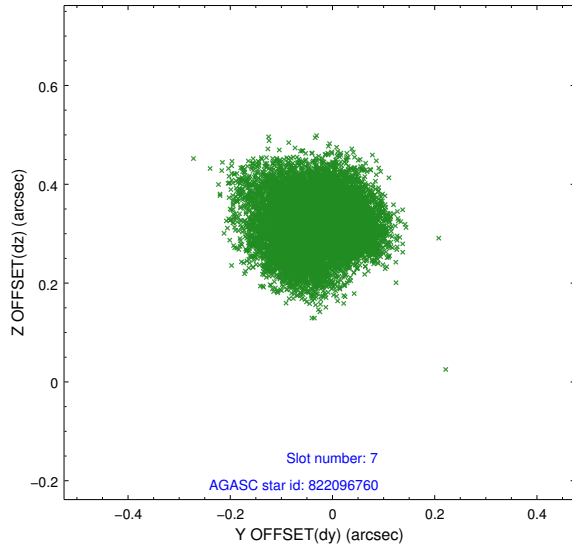
2.4.3 Slot 5



2.4.4 Slot 6

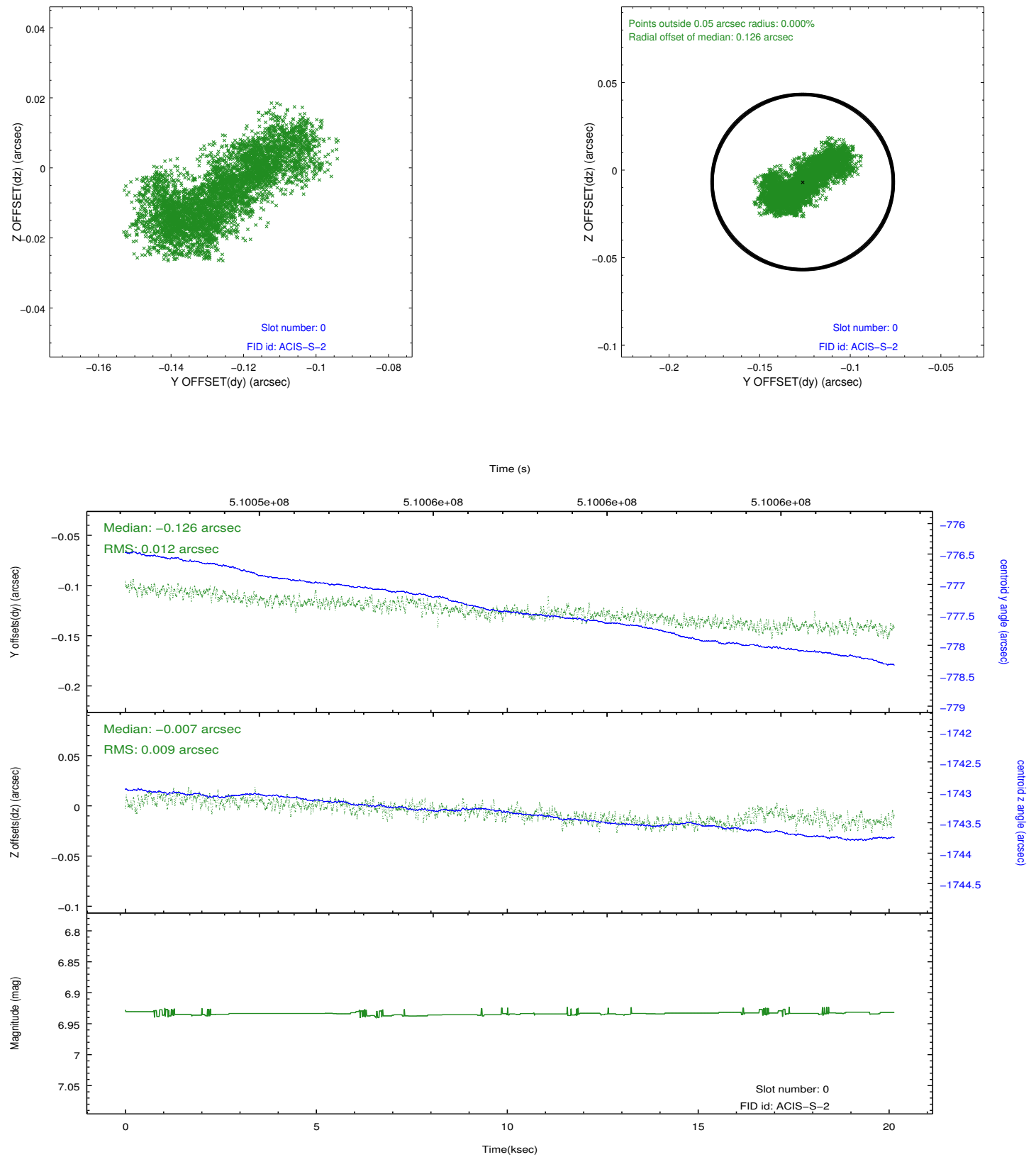


2.4.5 Slot 7

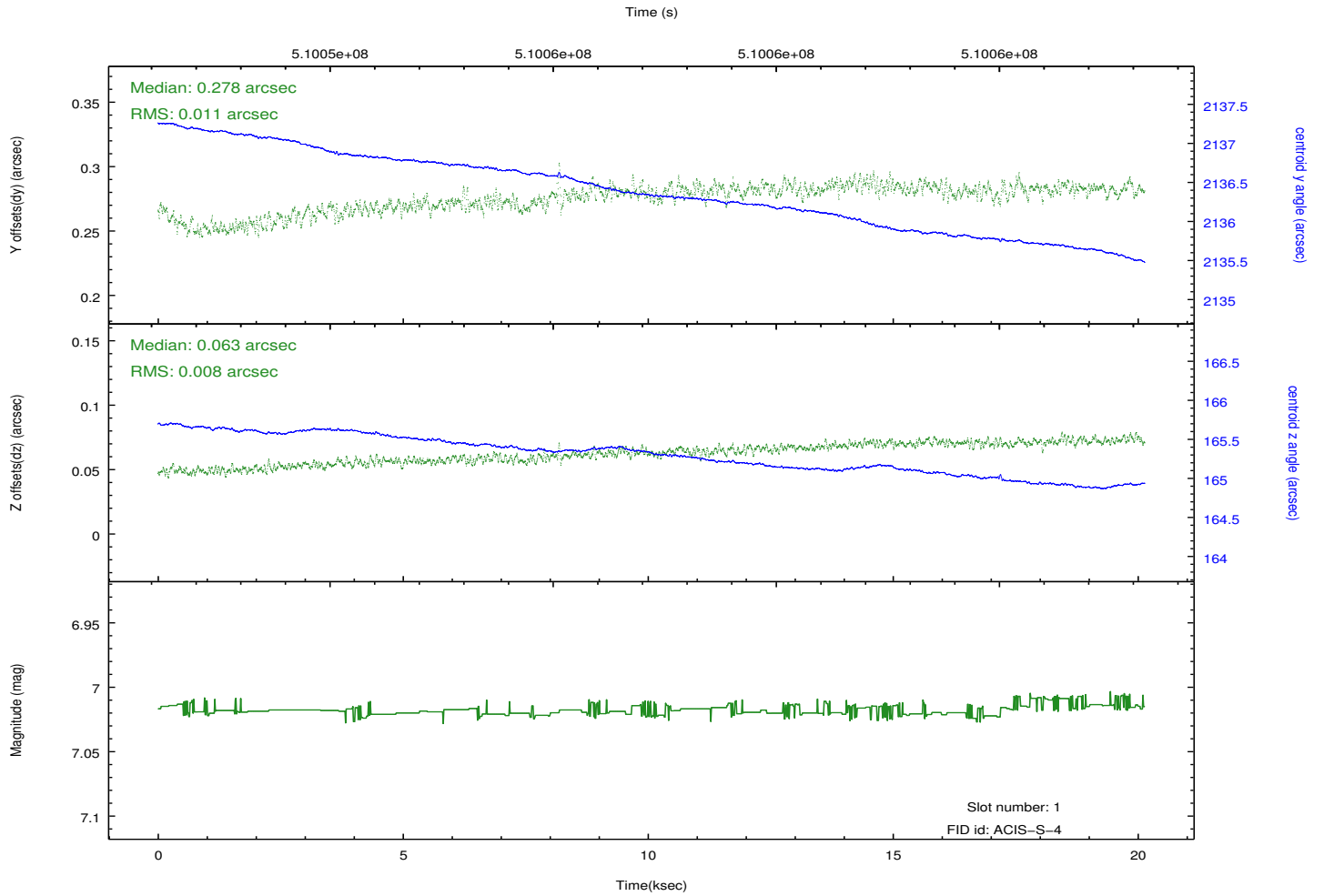
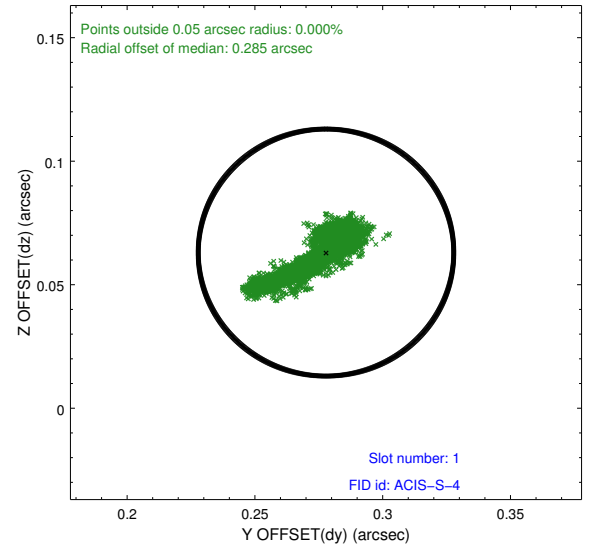
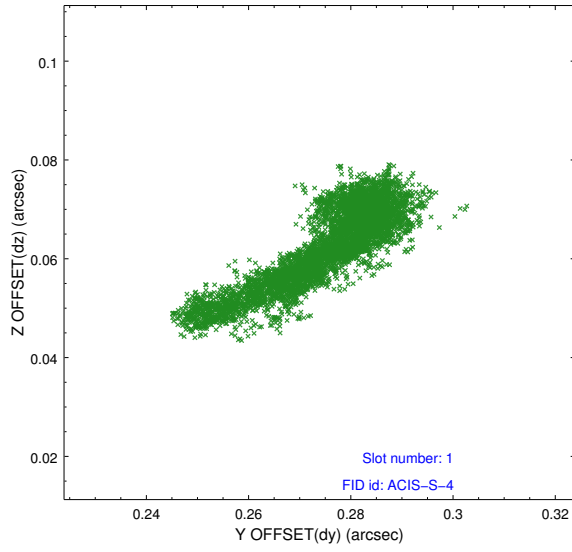


2.5 FID Slots

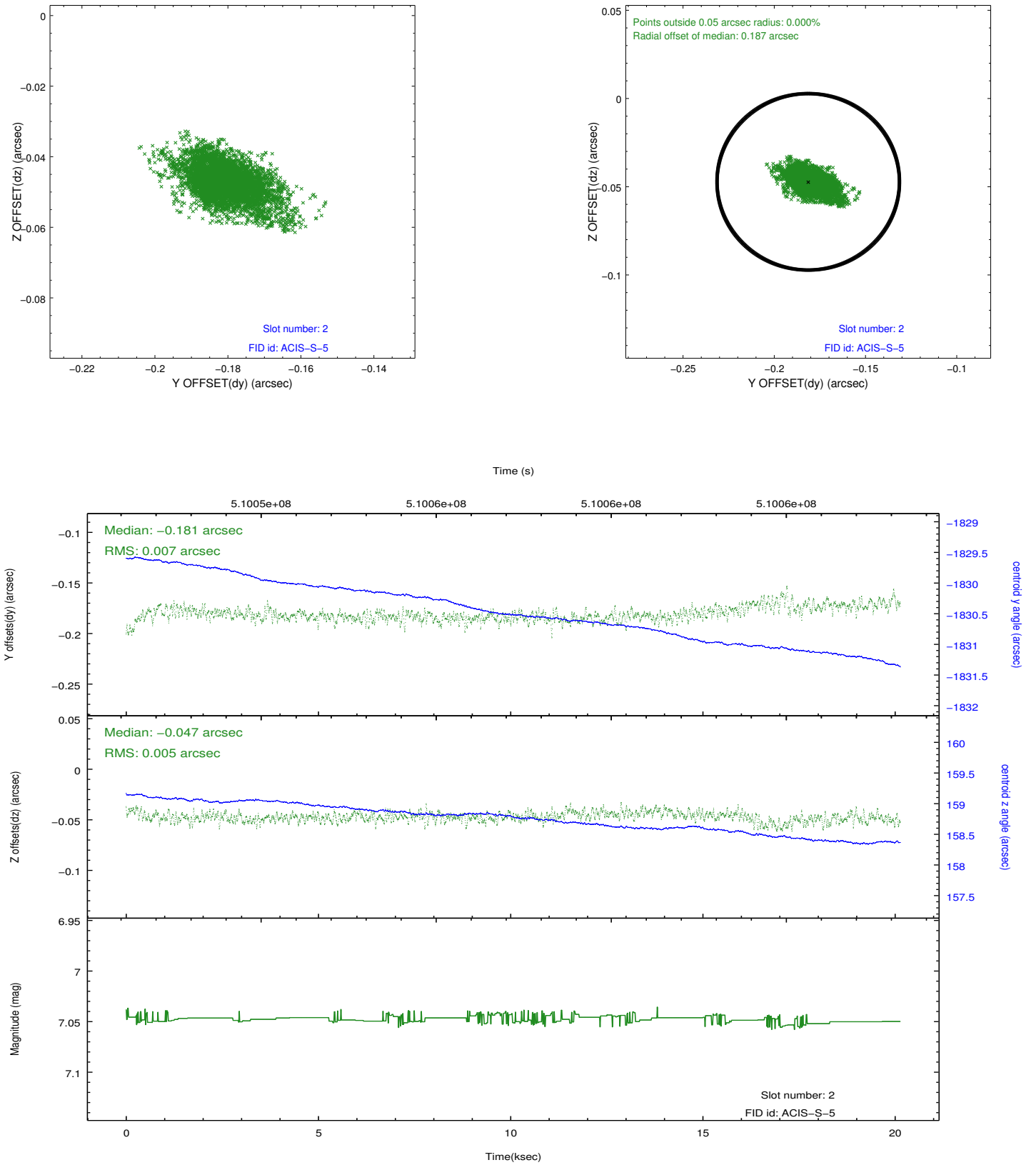
2.5.1 Slot 0



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)	2014.12.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.068682142675

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.