

V&V Reference Report

L2 ASCDS Version : 10.4.3.1

Observation 18801 - L2 Version 1
Chandra X-Ray Center

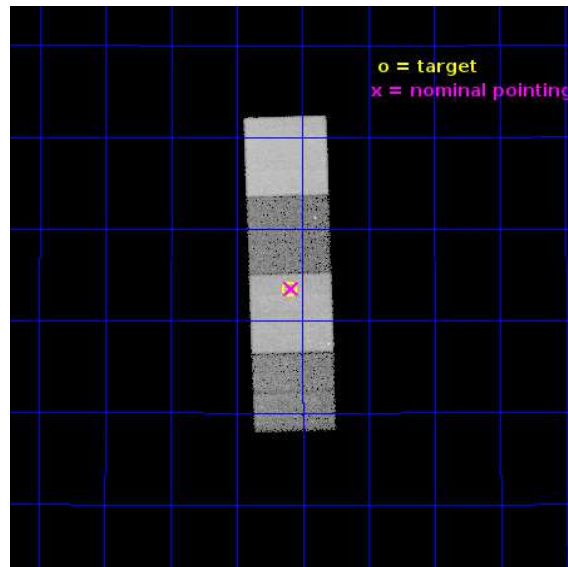
L2 Processing Date : Mar 11 2016

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1 Front

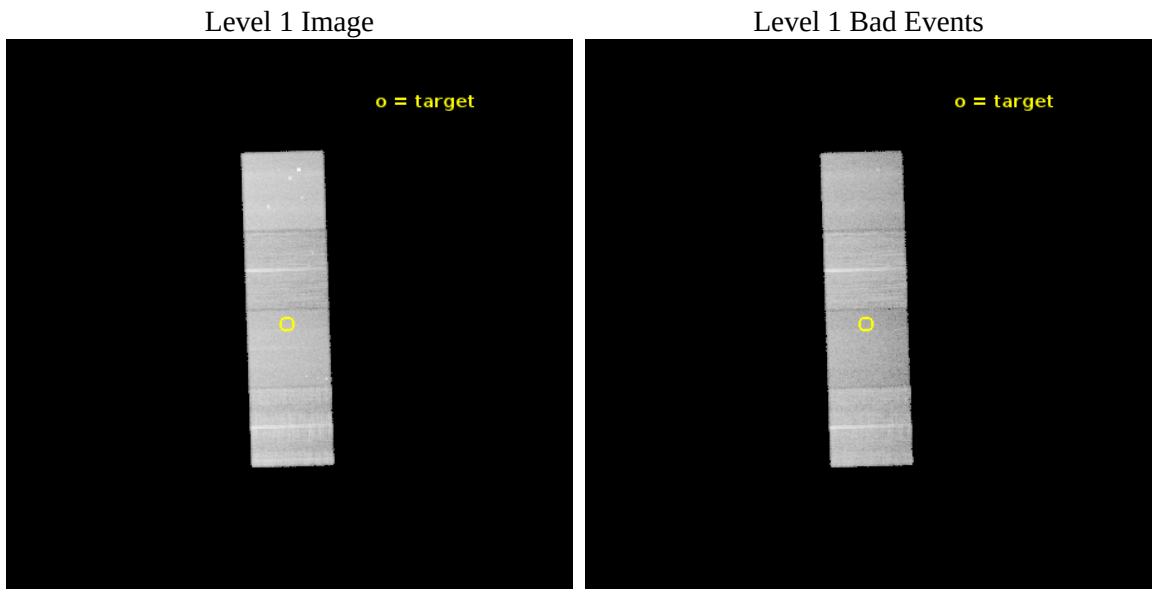
seq_num	401669	Sequence number
obs_id	18801	Observation id
title	Constraining Neutron Star Properties with Chandra Observations of Millisecond Pulsars	Proposal title
observer	Dr. Tod Strohmayer	Principal investigator
object	PSR J1709+2313	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	257.274167	Observer's specified target RA [deg]
dec_targ	23.224389	Observer's specified target Dec [deg]
ra_nom	257.27138988539	Nominal RA [deg]
dec_nom	23.225320572812	Nominal Dec [deg]
roll_nom	88.157723257671	Nominal Roll [deg]
revision	1	Processing version of data
ontime	30109.825297356	Sum of GTIs [s]
livetime	29716.418263315	Livetime [s]
ontime5	30109.784257412	Sum of GTIs [s]
ontime6	30109.743217349	Sum of GTIs [s]
ontime7	30109.825297356	Sum of GTIs [s]
ontime8	30109.702177405	Sum of GTIs [s]
l2events	242086	Number of level 2 events



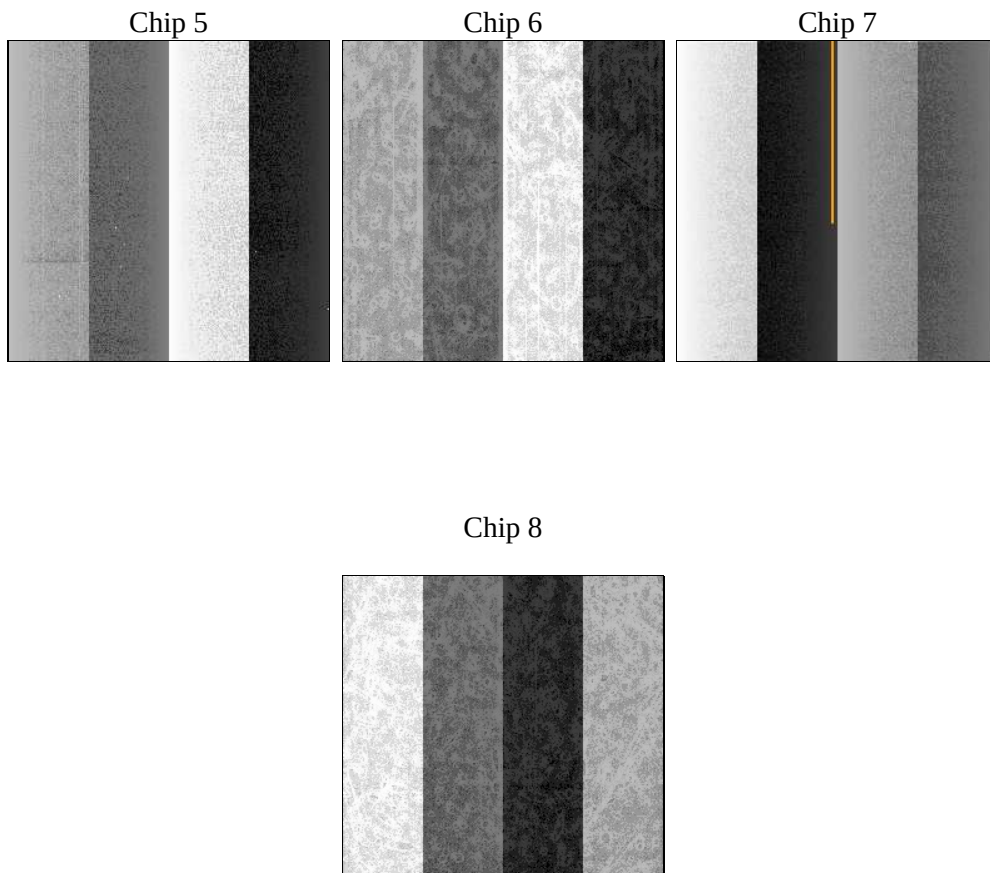
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	30109.825297356	Sum of GTIs [s]
caldsver	4.7.0	 	ontime5	30109.784257412	Sum of GTIs [s]
date	2016-03-11T12:13:56	Date and time of file creation	ontime6	30109.743217349	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	30109.825297356	Sum of GTIs [s]
			ontime8	30109.702177405	Sum of GTIs [s]
			l1events	829536	Number of level 1 events

2.1.4 Events

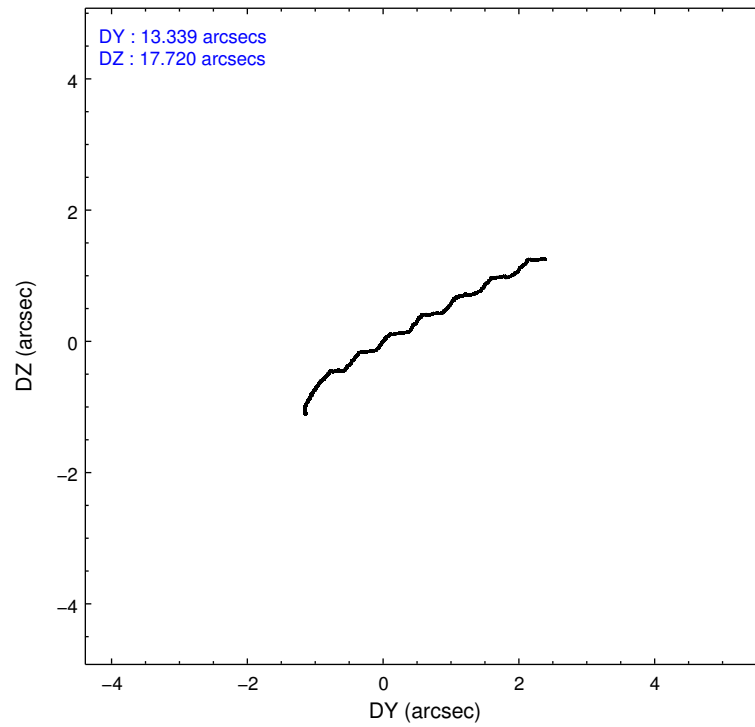
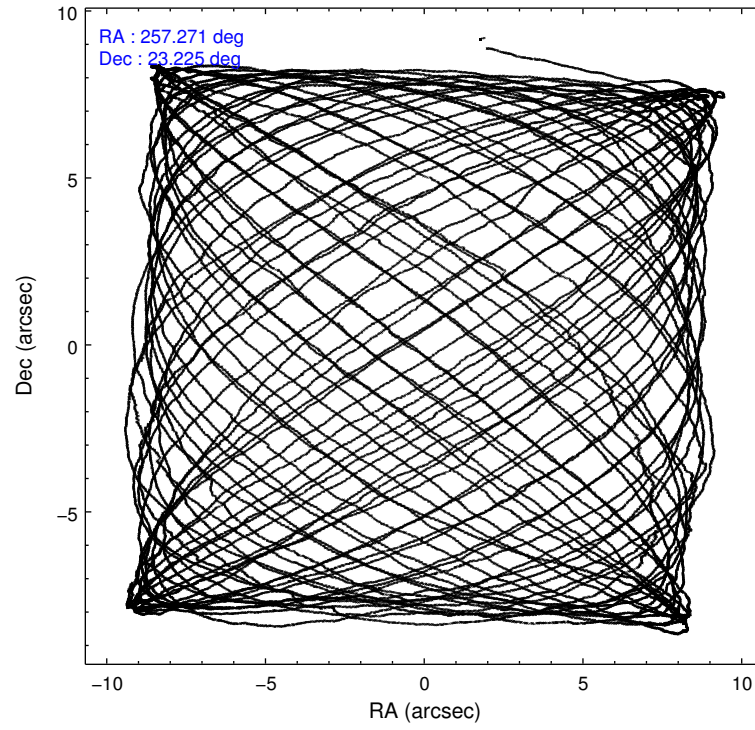
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	247882	173097	189322	219235
rejected events	121626	154126	100075	158156
rejected %	49%	89%	52%	72%

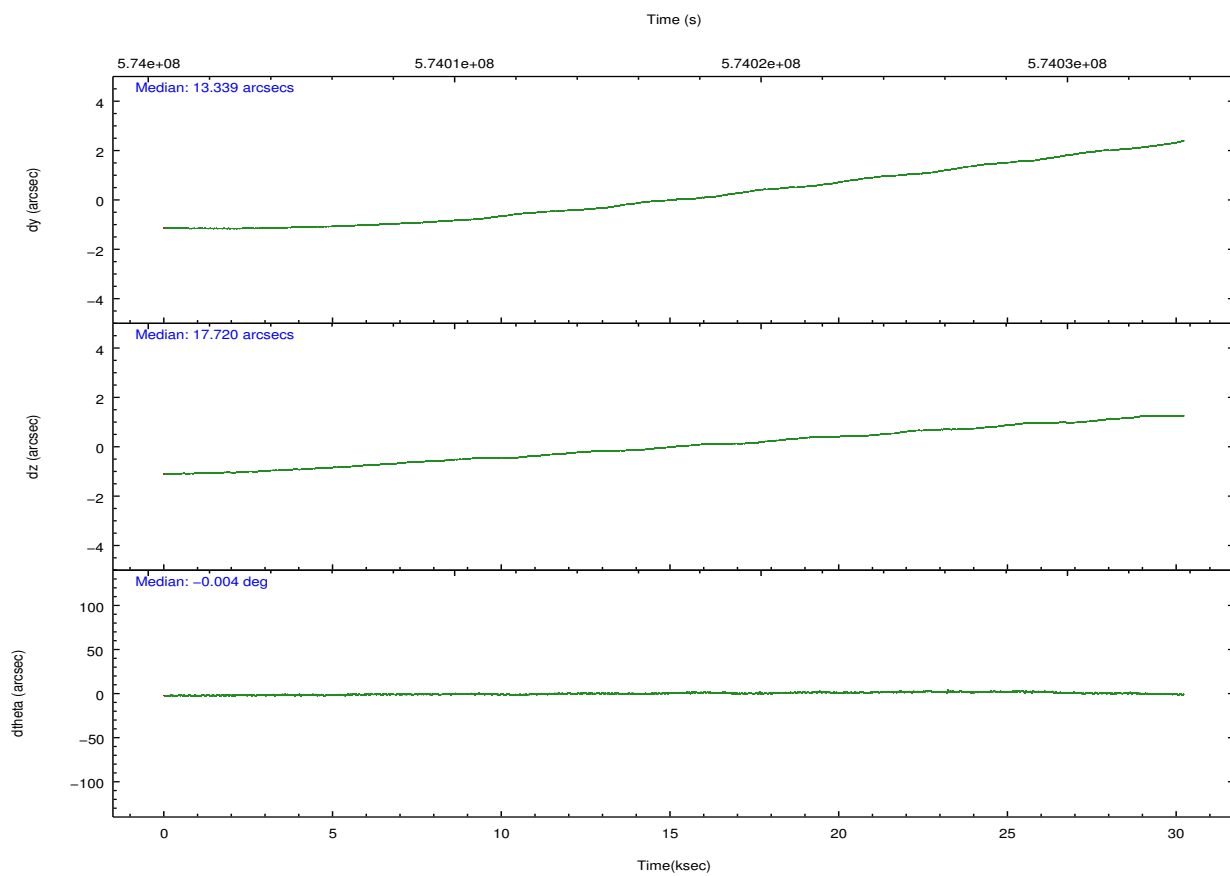
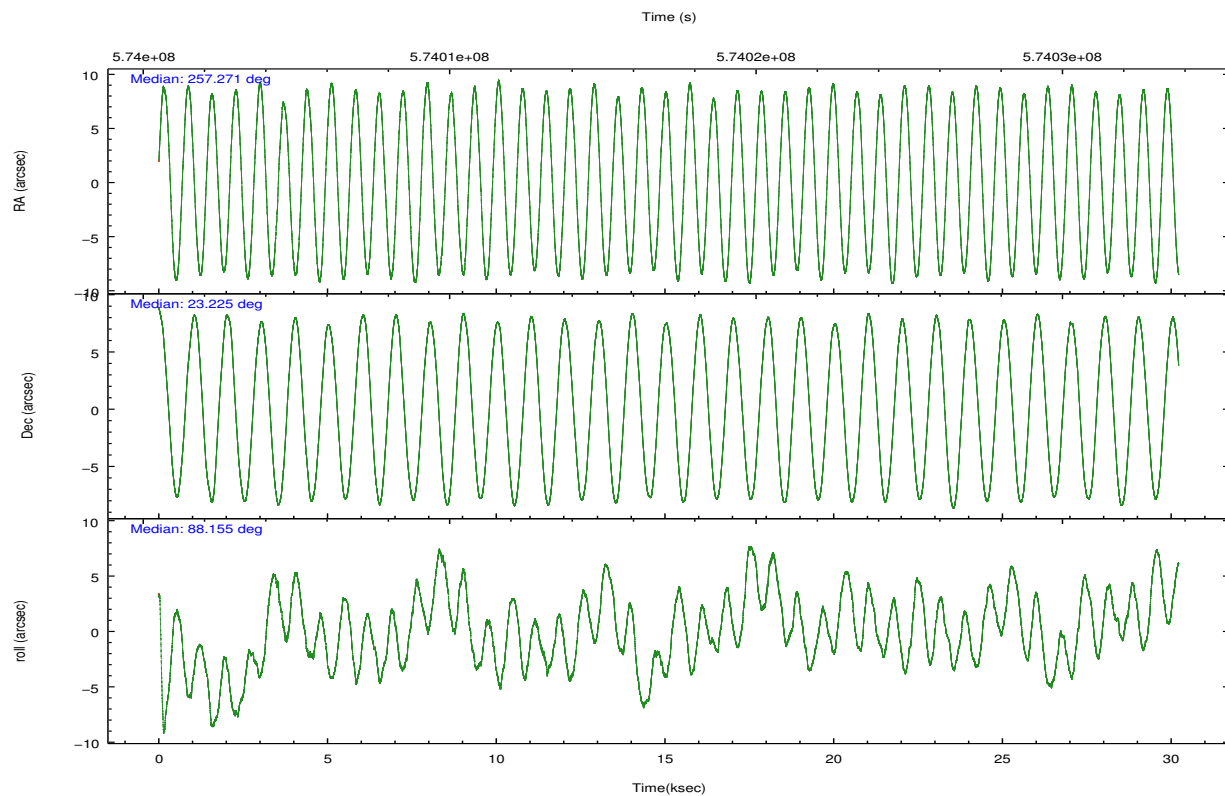
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	9741	6306	8242	17278
	3%	3%	4%	7%
grade 1 events	856	103	282	178
	0%	0%	0%	0%
grade 2 events	40380	4662	19728	14925
	16%	2%	10%	6%
grade 3 events	4028	1874	7187	6293
	1%	1%	3%	2%
grade 4 events	4023	1857	7129	5862
	1%	1%	3%	2%
grade 5 events	17784	7039	18999	11031
	7%	4%	10%	5%
grade 6 events	68115	4277	46983	16740
	27%	2%	24%	7%
grade 7 events	102955	146979	80772	146928
	41%	84%	42%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	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	257.285820	257.2713898853915	Subarray requested	NONE	NONE
[deg] Pointing Dec	23.201289	23.22532057281181	Alternating exposures requested	N	N
[deg] Pointing Roll	87.995407	88.15772325767088	[s] Primary exposure time	0.000000	3.1
[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)	574002270.184000	574001351.34203			
Observation start date	2016-03-10T13:03:22	2016-03-10T12:49:11			
[s] Observation end time (MET)	574032270.184000	574033004.88133			
Observation end date	2016-03-10T21:23:22	2016-03-10T21:36:44			
Read mode	TIMED	TIMED			

2.3 Aspect



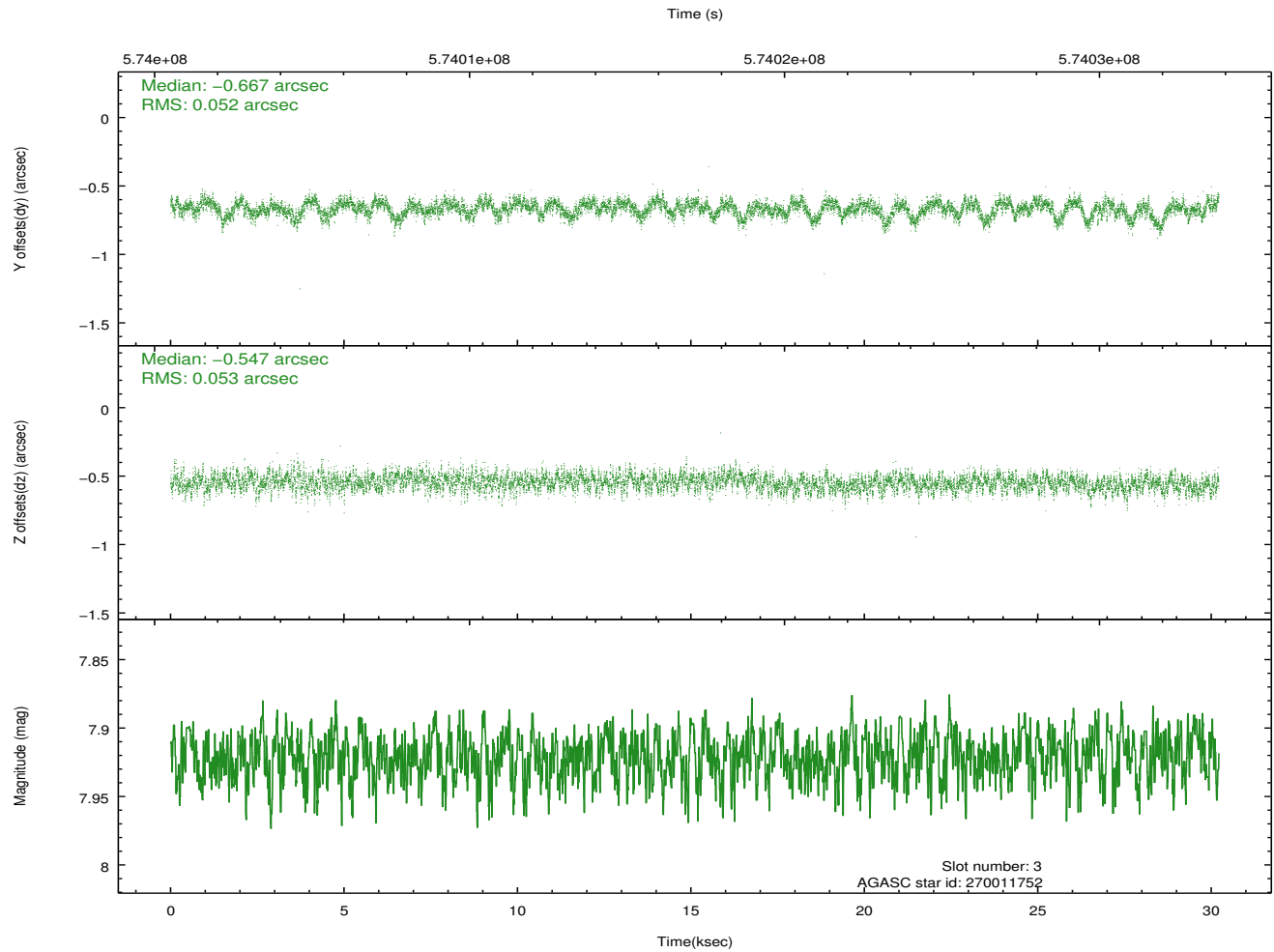
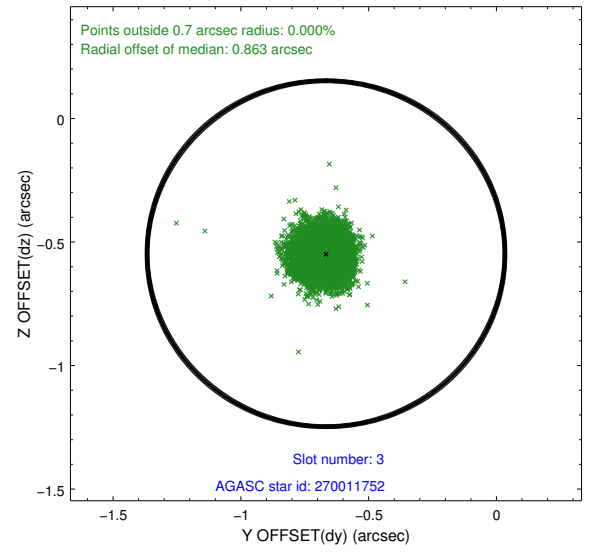
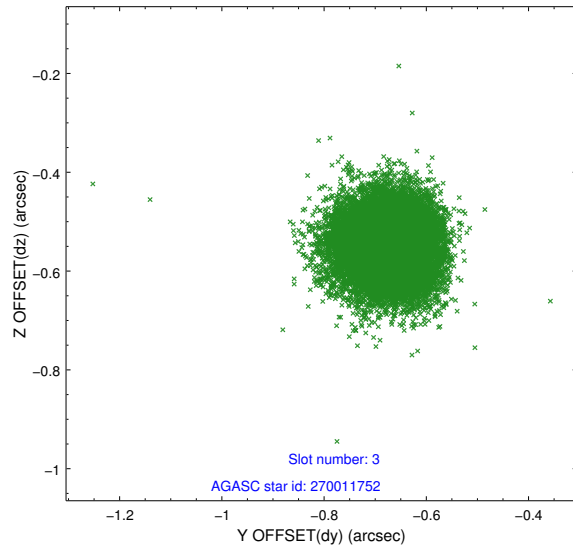


Slot Statistics

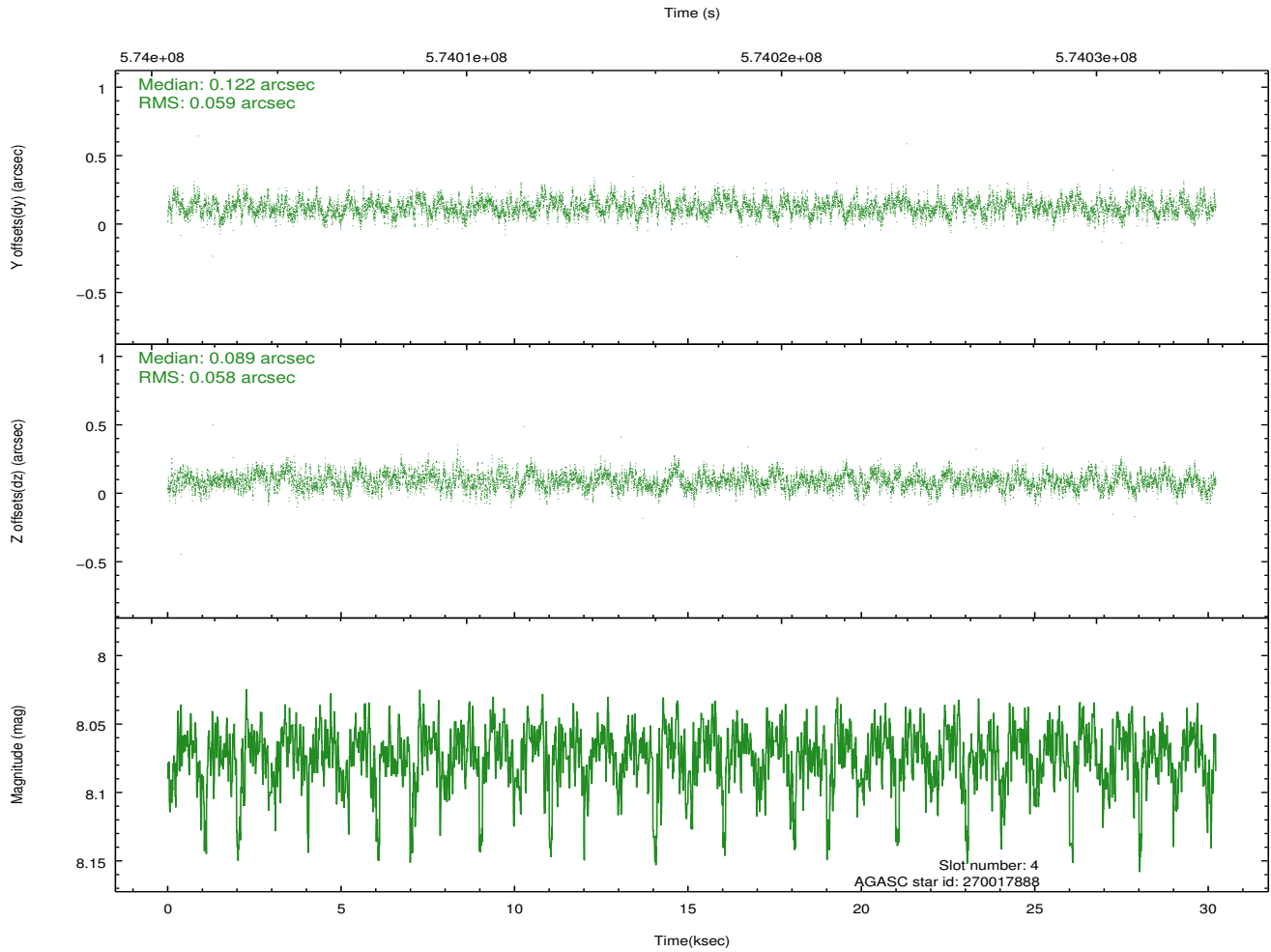
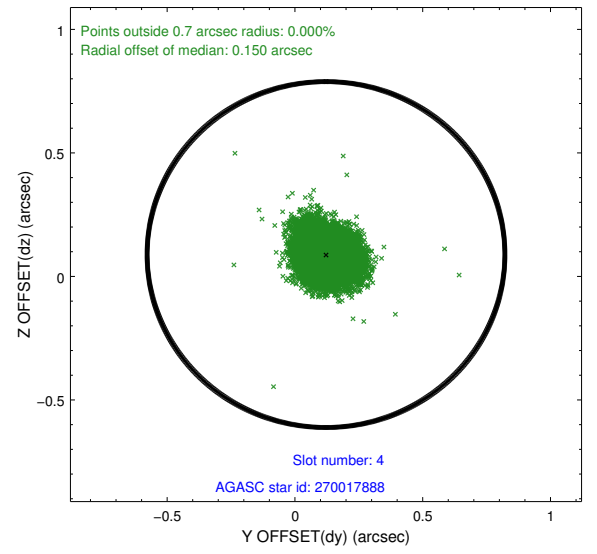
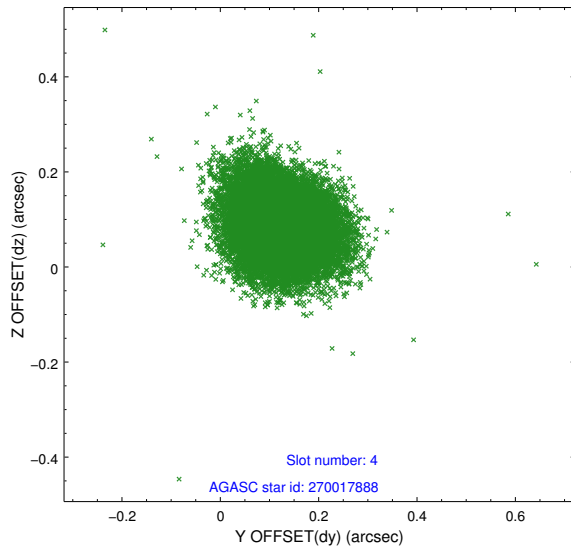
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.11	7370	-0.134	-0.141	0.048	0.074	0.000000	0.000000	-766.60	-1739.27
1	FID		ACIS-S-4	7.21	7369	0.434	0.100	0.048	0.066	0.000000	0.000000	2147.23	169.38
2	FID		ACIS-S-5	7.23	7370	-0.322	0.035	0.026	0.041	0.000000	0.000000	-1819.52	163.06
3	GUIDE	used	270011752	7.92	14739	-0.667	-0.547	0.079	0.126	256.685095	23.563891	1238.61	2026.64
4	GUIDE	used	270017888	8.07	14737	0.122	0.089	0.088	0.140	257.407344	23.577924	1369.98	-352.59
5	GUIDE	used	270019064	8.42	14739	-0.058	-0.300	0.116	0.178	256.784607	23.399474	656.84	1680.36
6	GUIDE	used	270142880	8.66	14733	0.421	0.619	0.102	0.165	257.888174	22.724961	-1638.98	-2058.04
7	GUIDE	used	270018248	9.61	14716	0.198	0.143	0.198	0.306	256.826726	22.568306	-2328.37	1445.80

2.4 Star Slots

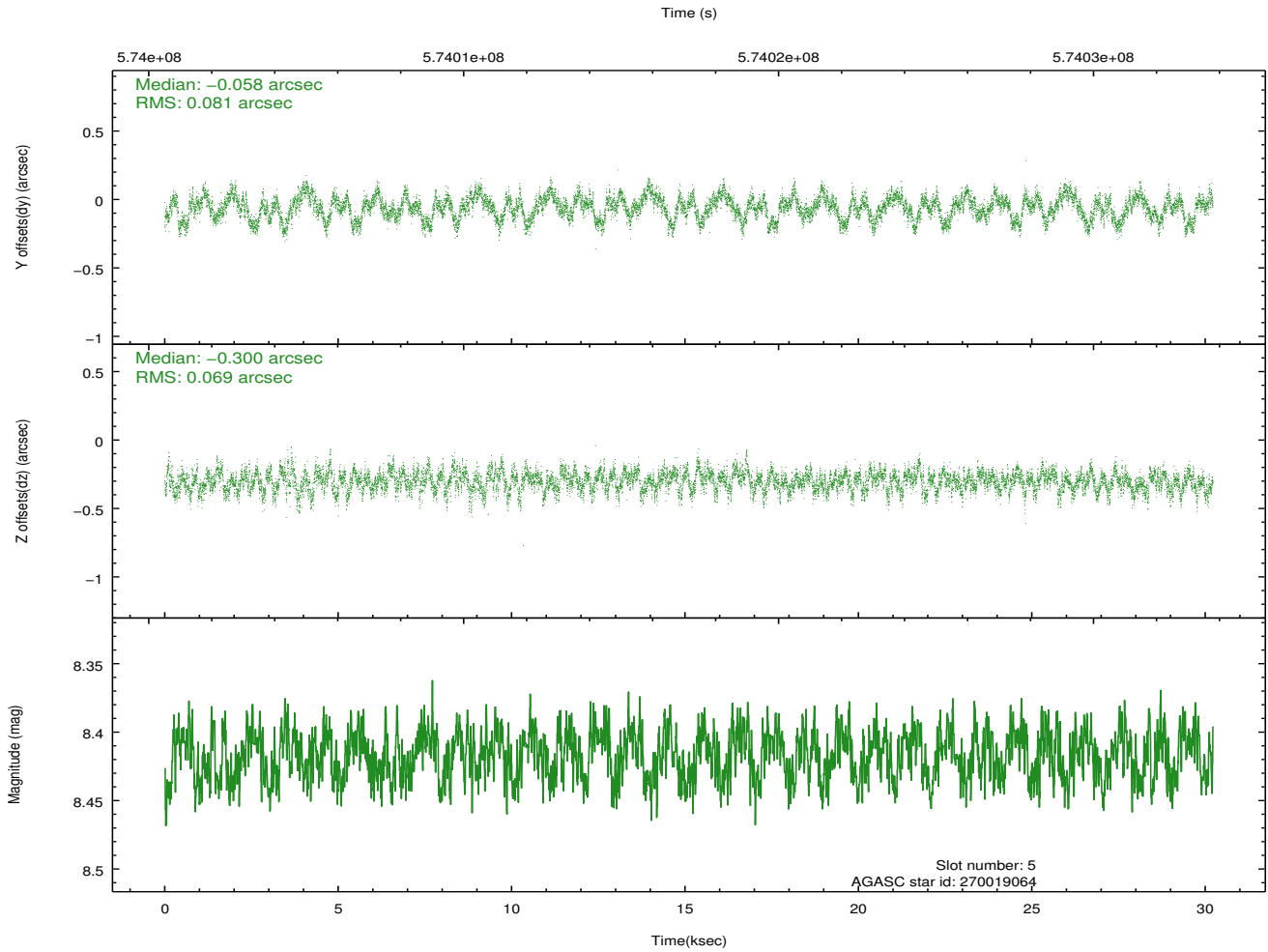
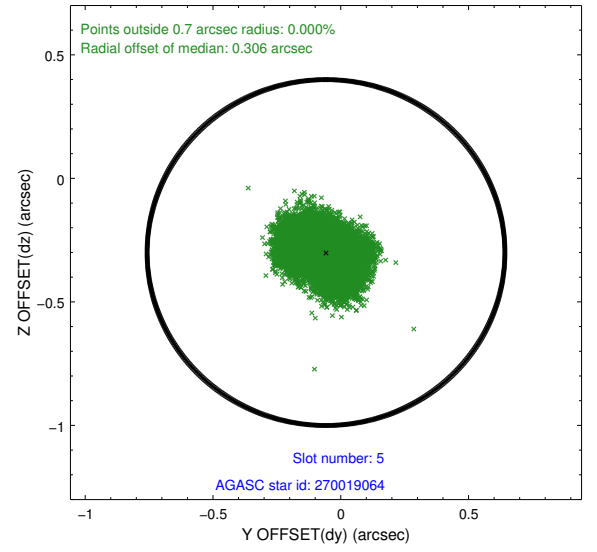
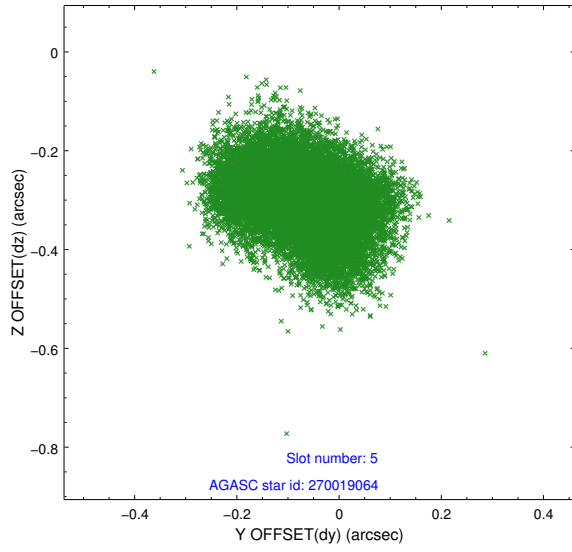
2.4.1 Slot 3



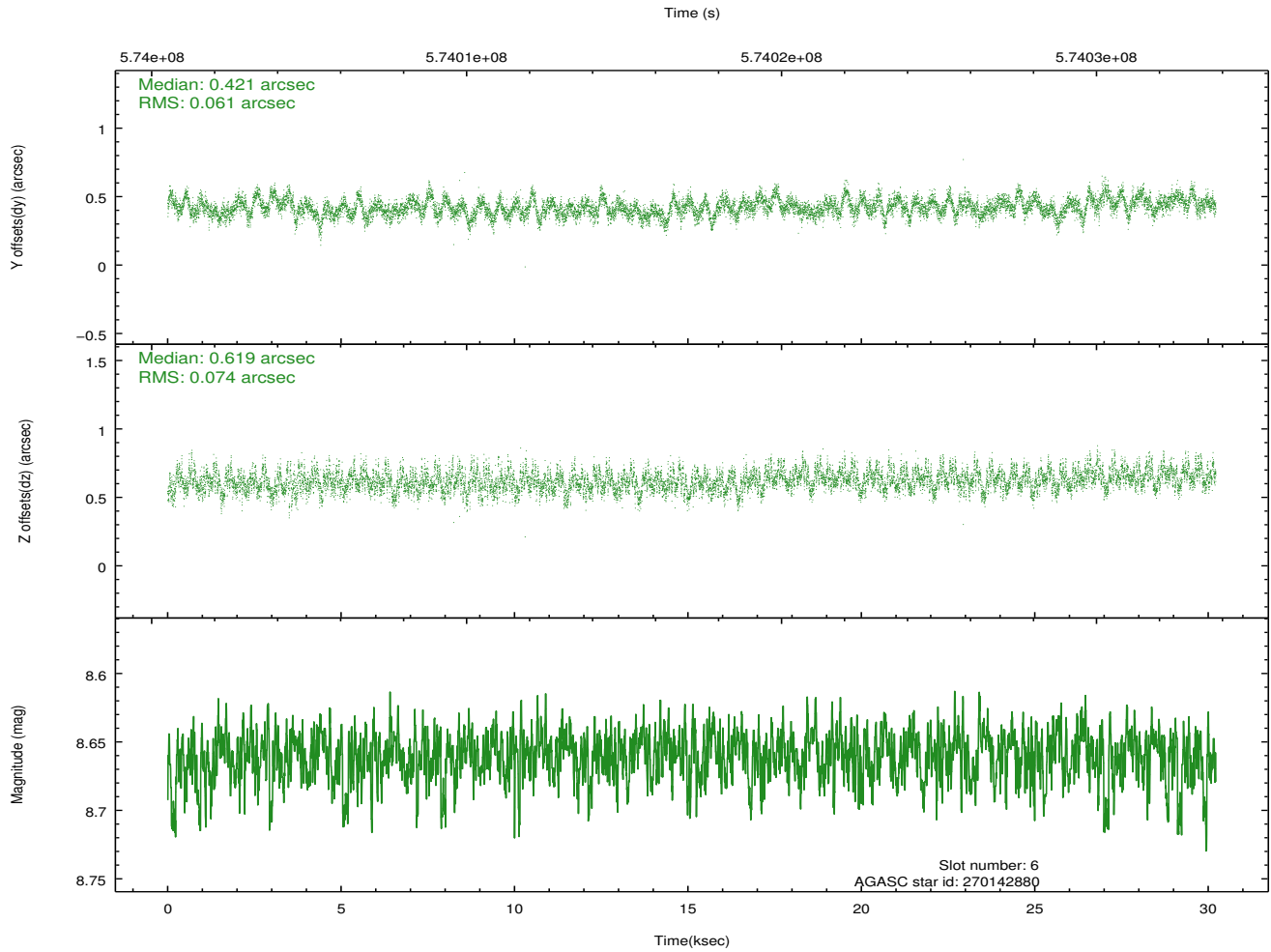
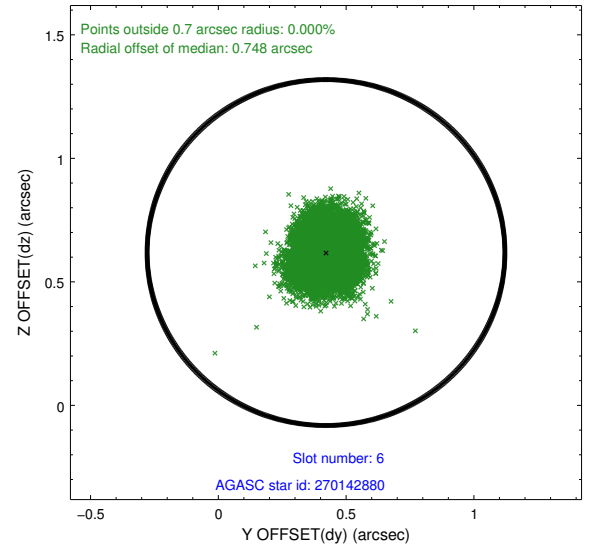
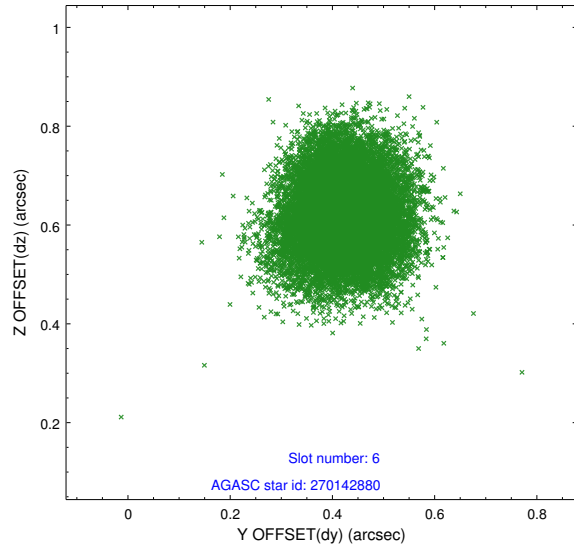
2.4.2 Slot 4



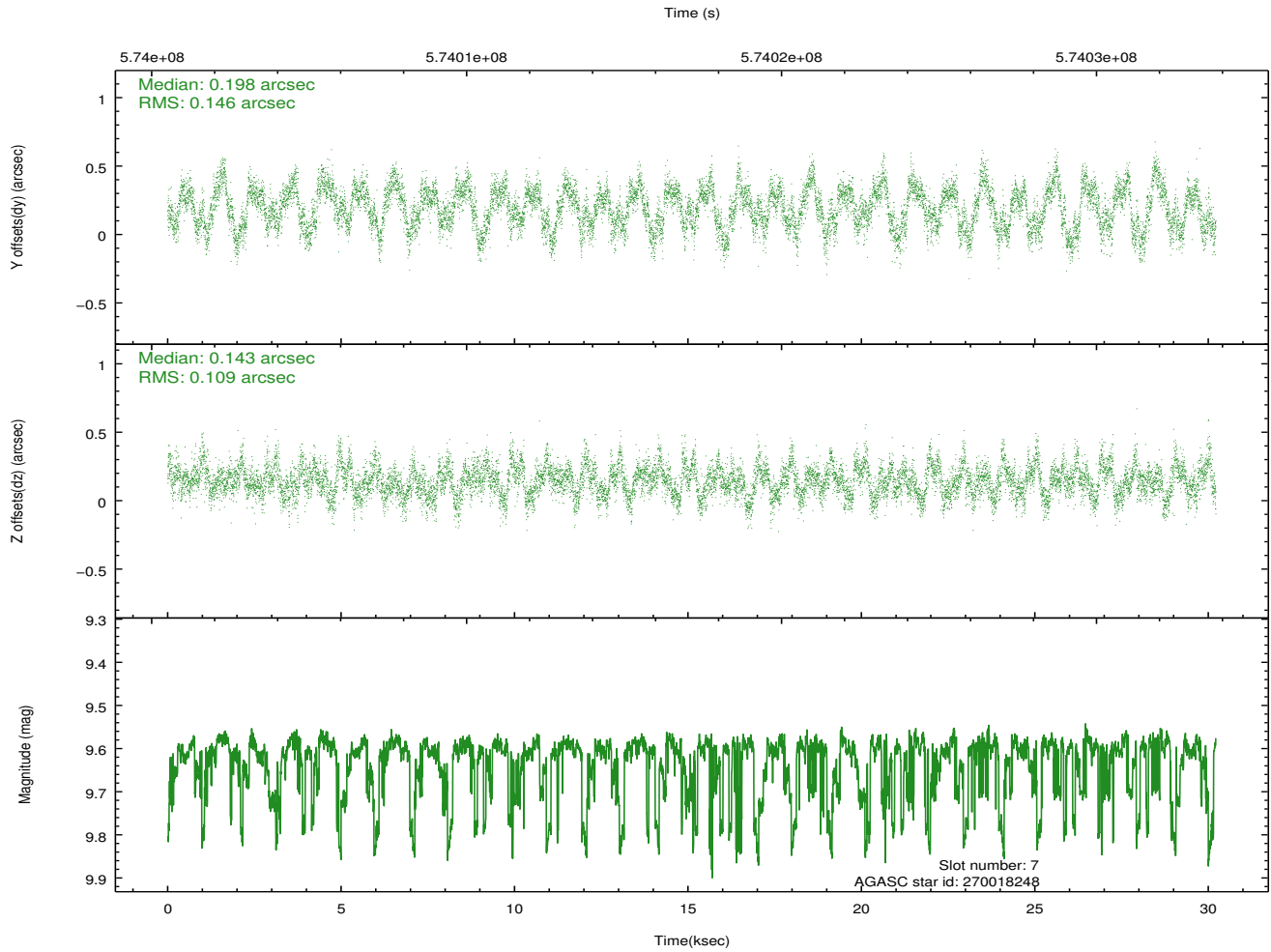
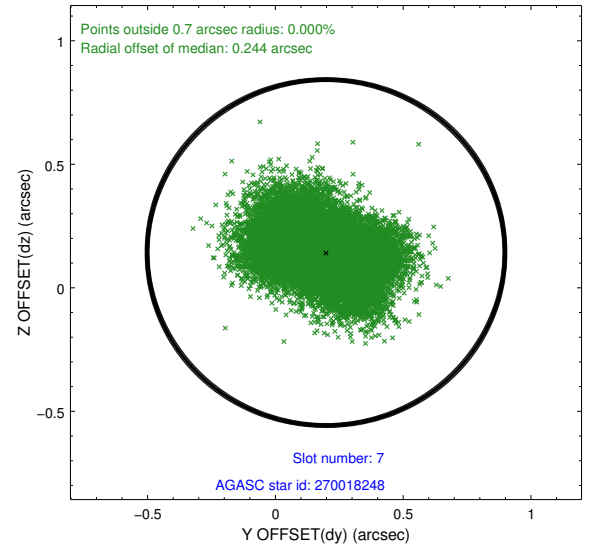
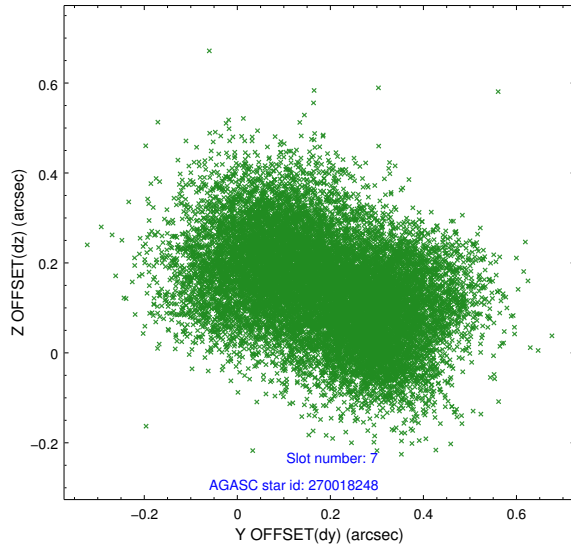
2.4.3 Slot 5



2.4.4 Slot 6

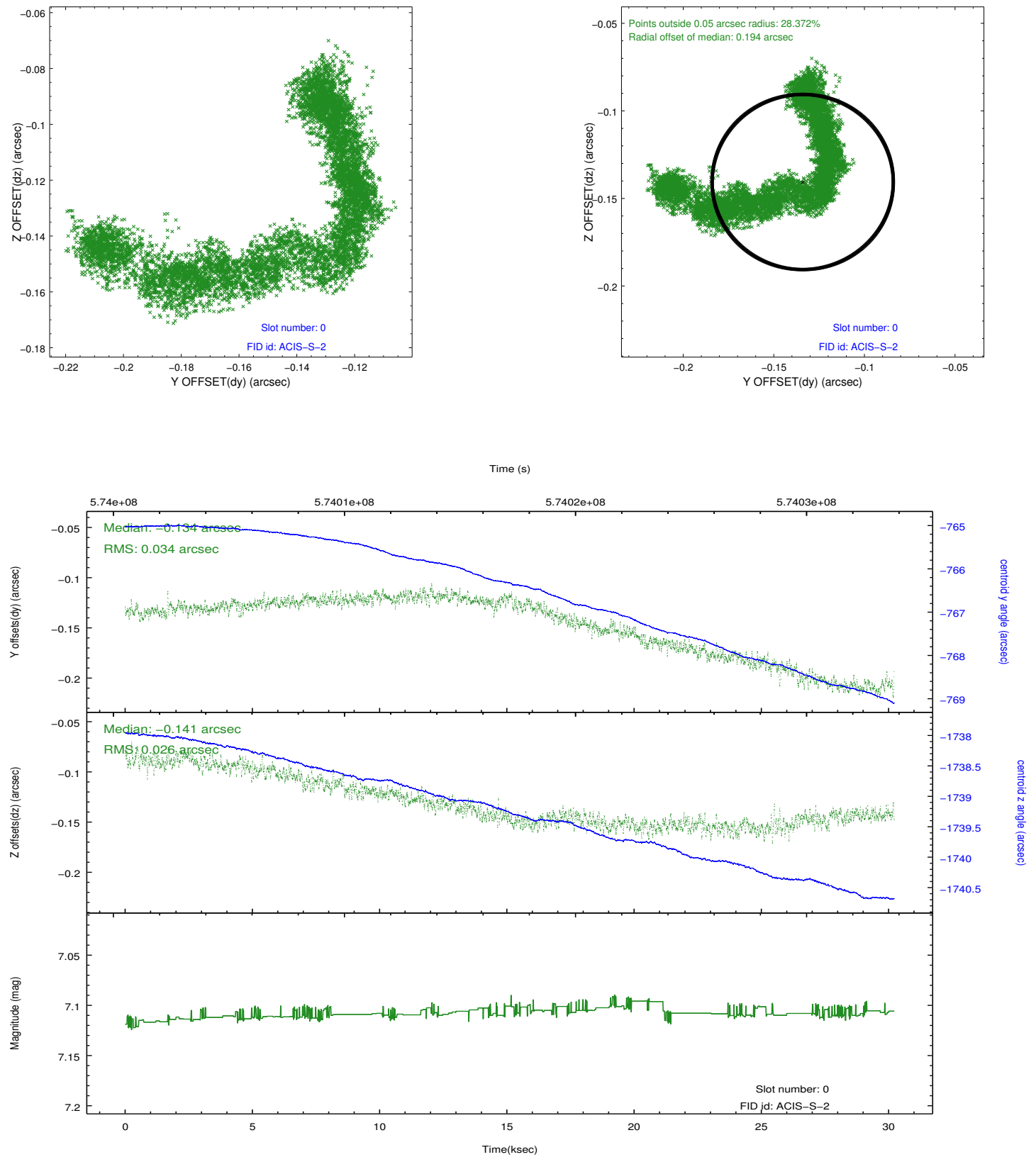


2.4.5 Slot 7

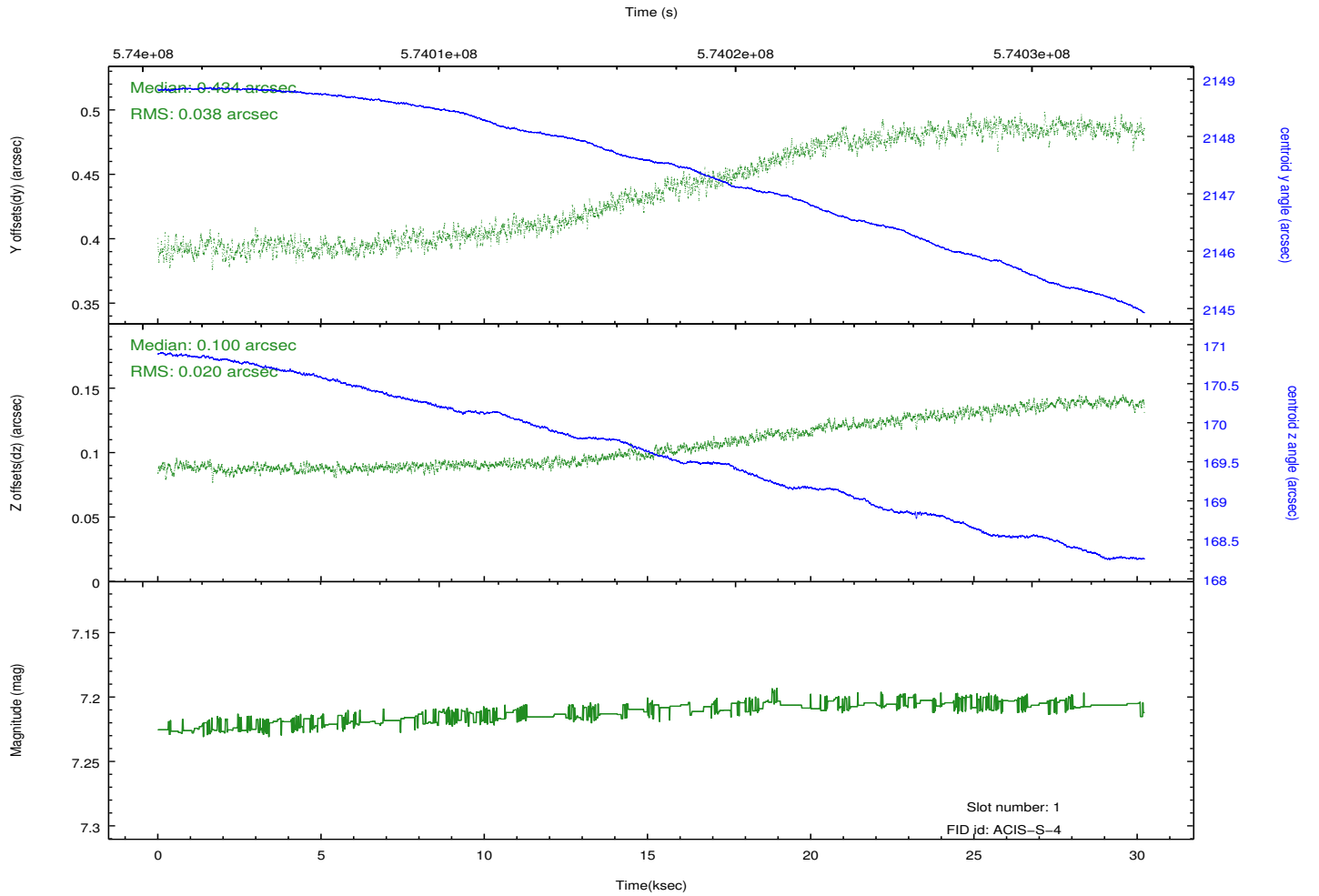
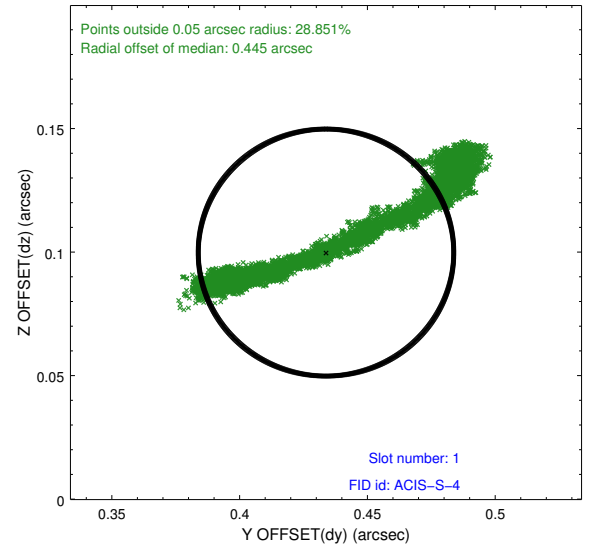
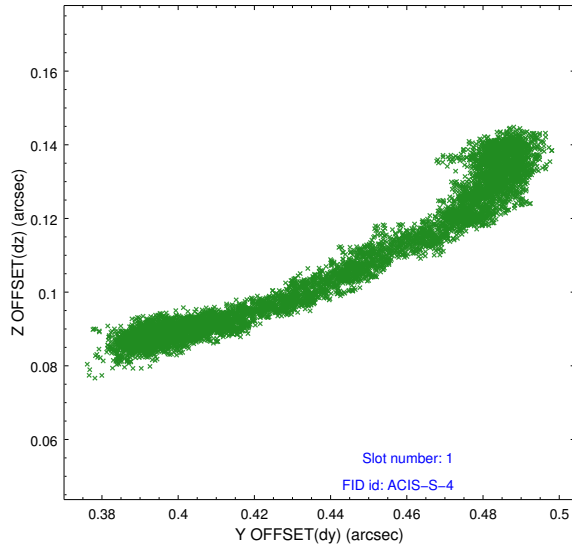


2.5 FID Slots

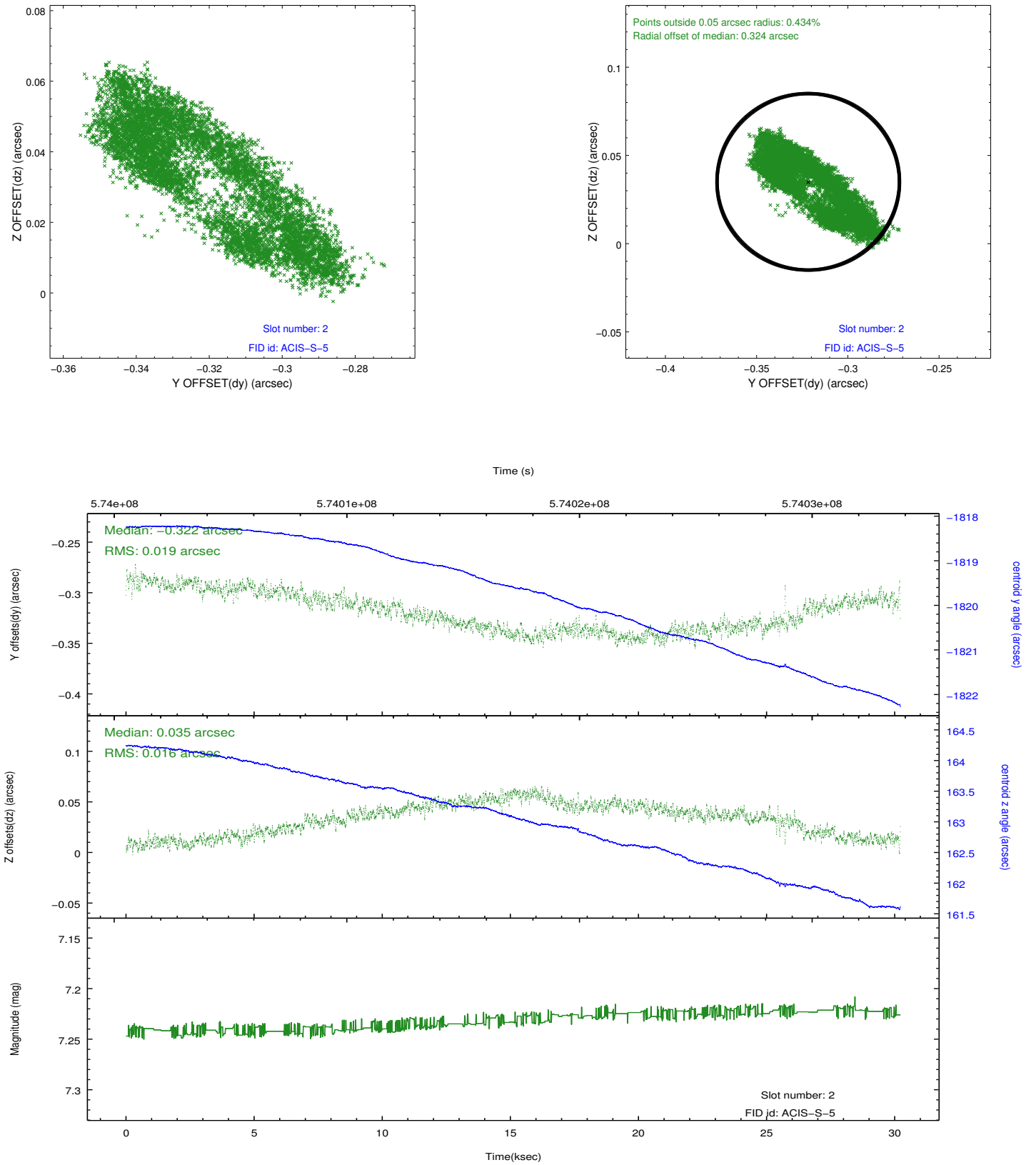
2.5.1 Slot 0



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)	2016.03.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.109825297356

A.2 Comments