

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22261 - L2 Version 1
Chandra X-Ray Center

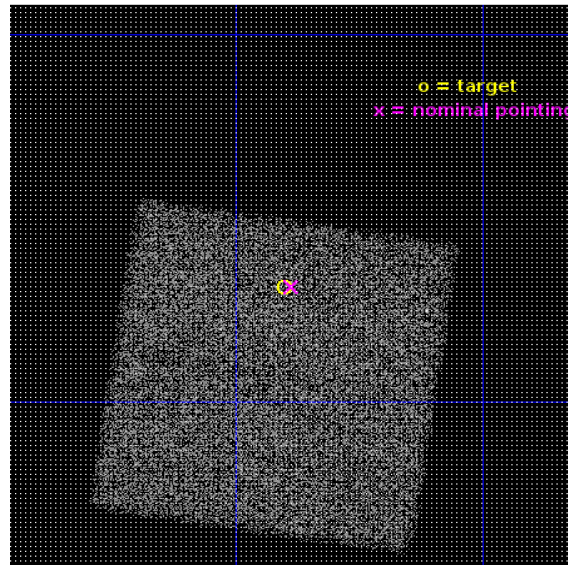
L2 Processing Date : Jun 17 2019

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
2.5	FID Slots	13
2.5.1	Slot 0	13
2.5.2	Slot 1	14
2.5.3	Slot 2	15
A	Summary	16
A.1	Status	16
A.2	Comments	16

1 Front

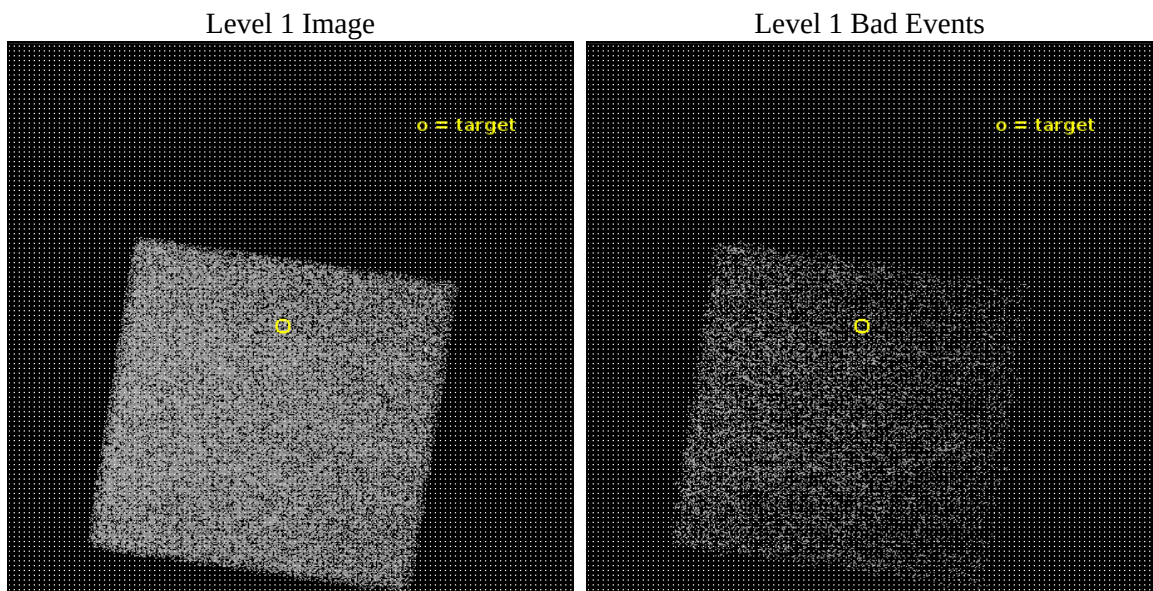
seq_num	703904	Sequence number
obs_id	22261	Observation id
title	Chandra-NuSTAR synergy in the NuSTAR serendipitous survey	Proposal
observer	Dr David Alexander	Principal investigator
object	M33_MOS01_s6	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	23.225082	Observer's specified target RA [deg]
dec_targ	30.552139	Observer's specified target Dec [deg]
ra_nom	23.221655443567	Nominal RA [deg]
dec_nom	30.552152437827	Nominal Dec [deg]
roll_nom	98.474235360134	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10091.905769229	Sum of GTIs [s]
livetime	9955.7116340748	Livetime [s]
ontime7	10091.905769229	Sum of GTIs [s]
l2events	40869	Number of level 2 events



2 OBI

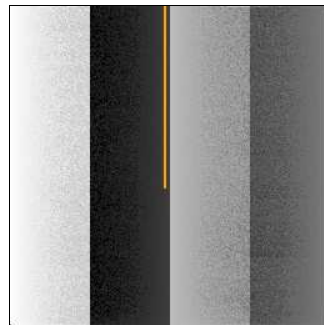
2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	10000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	10091.905769229	Sum of GTIs [s]
caldsver	4.8.3	 	ontime7	10091.905769229	Sum of GTIs [s]
date	2019-06-17T05:50:58	Date and time of file creation	l1events	96583	Number of level 1 events
revision	1	Processing version of data			

2.1.4 Events

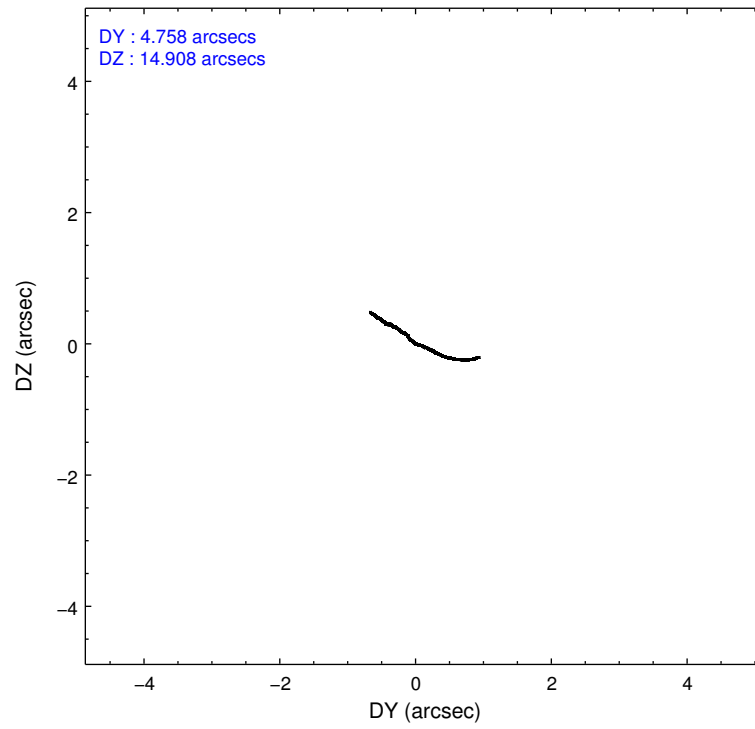
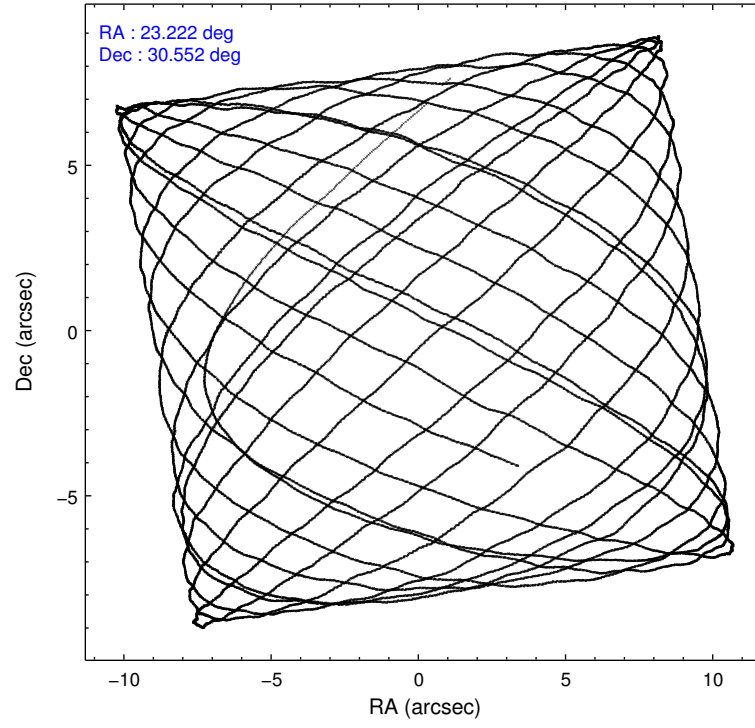
	ccd 7
level 1 events	96583
rejected events	54560
rejected %	56%

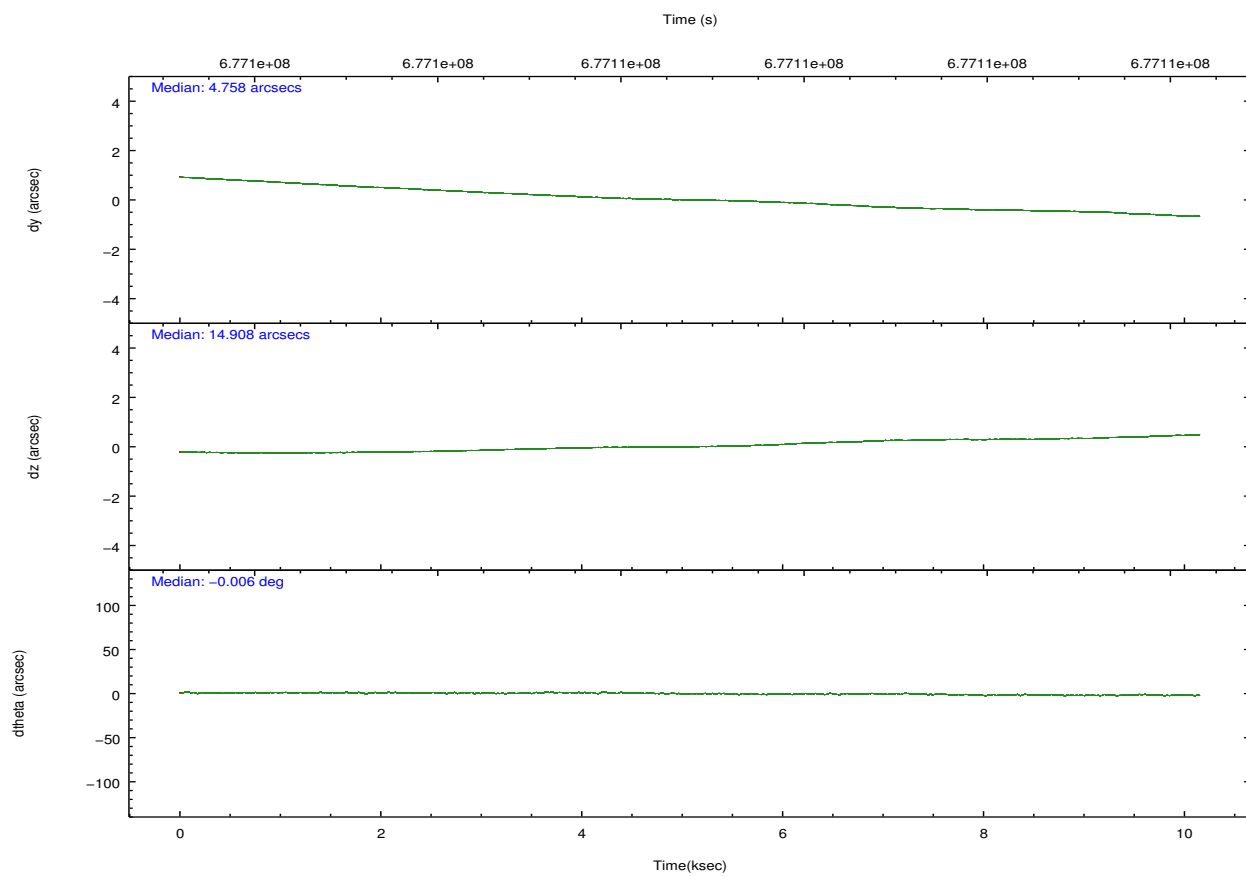
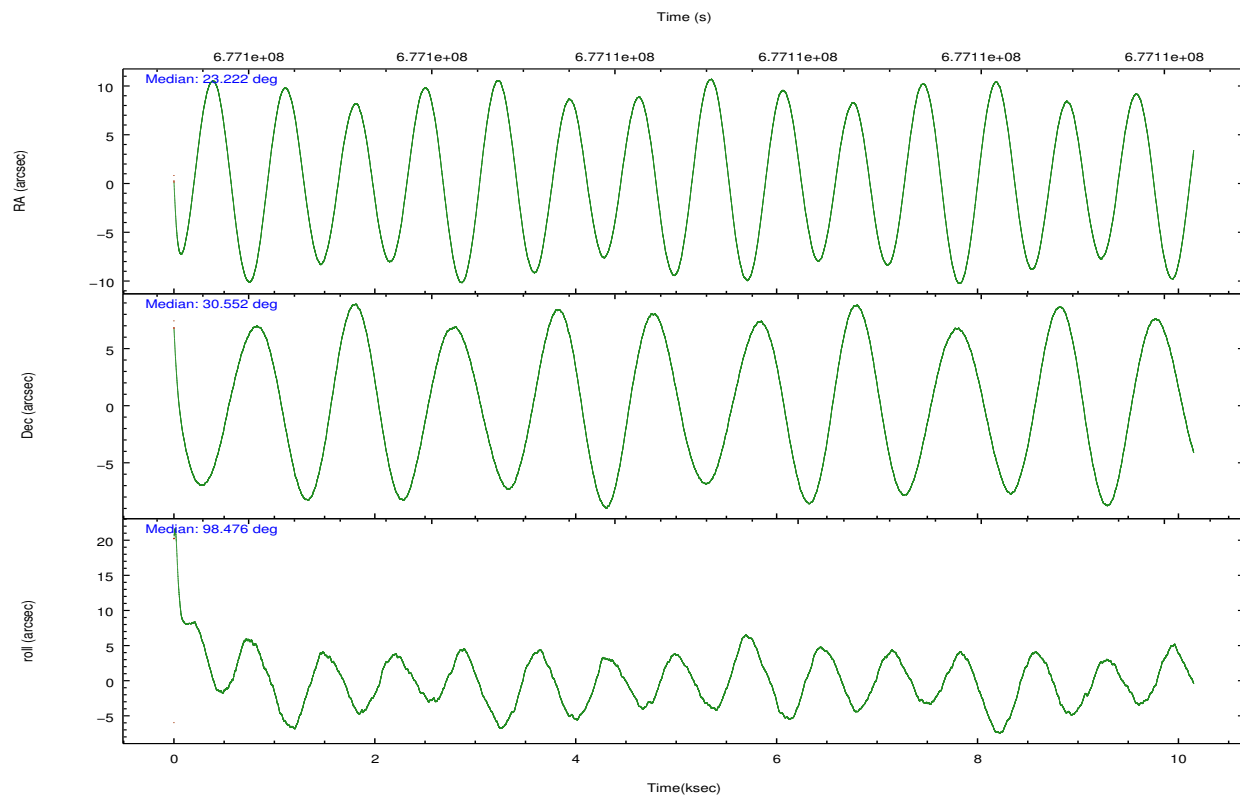
	ccd 7
grade 0 events	3403
	3%
grade 1 events	146
	0%
grade 2 events	8660
	8%
grade 3 events	3329
	3%
grade 4 events	3058
	3%
grade 5 events	9144
	9%
grade 6 events	23586
	24%
grade 7 events	45257
	46%

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	23.241826	23.22165544356687	Subarray requested	NONE	NONE
[deg] Pointing Dec	30.530898	30.55215243782749	Alternating exposures requested	N	N
[deg] Pointing Roll	98.307340	98.47423536013378	[s] Primary exposure time	0.000000	3
[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)	677101835.184000	677100495.07447			
Observation start date	2019-06-16T19:49:26	2019-06-16T19:28:15			
[s] Observation end time (MET)	677111835.184000	677112774.0627			
Observation end date	2019-06-16T22:36:06	2019-06-16T22:52:54			
Read mode	TIMED	TIMED			

2.3 Aspect



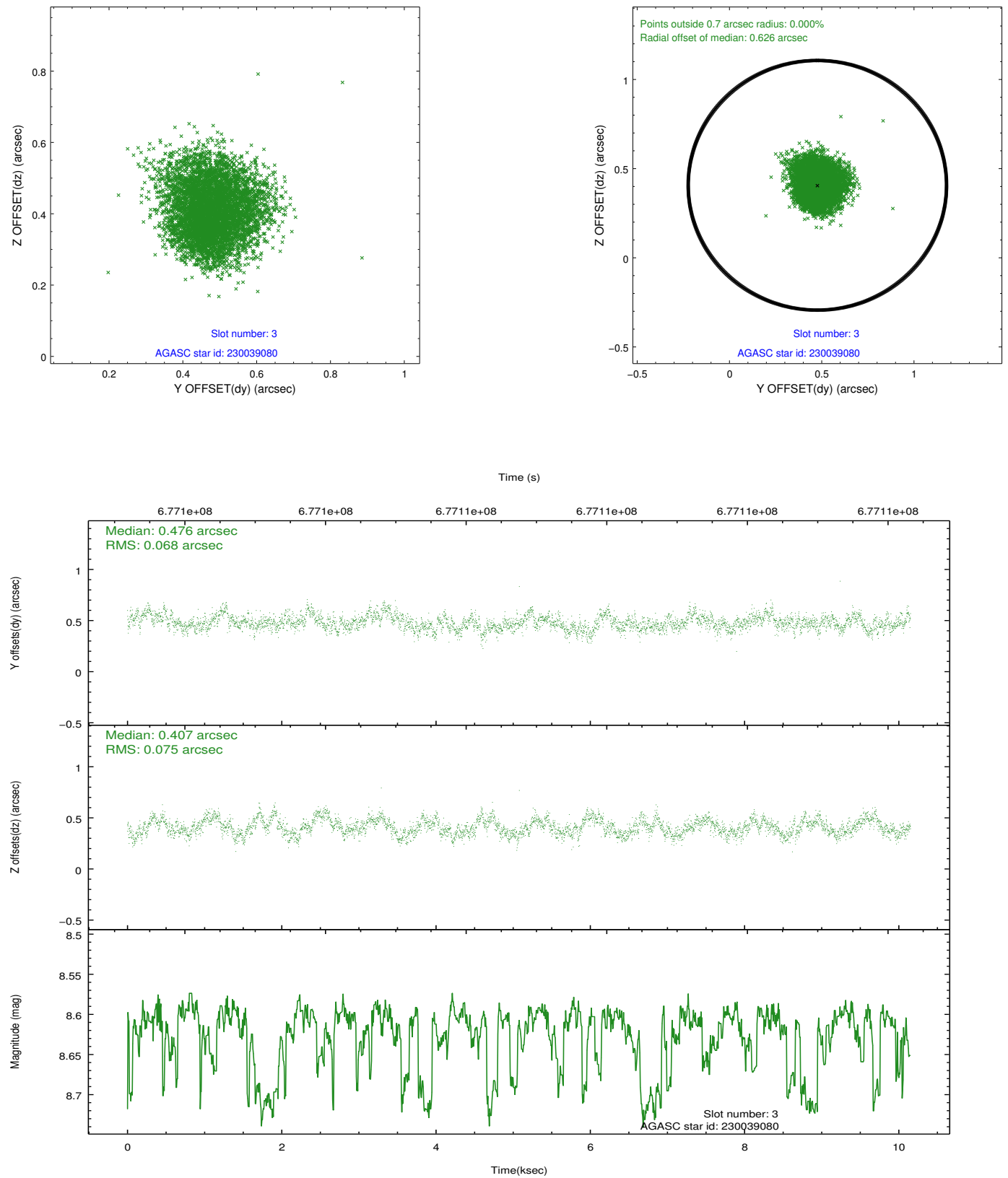


Slot Statistics

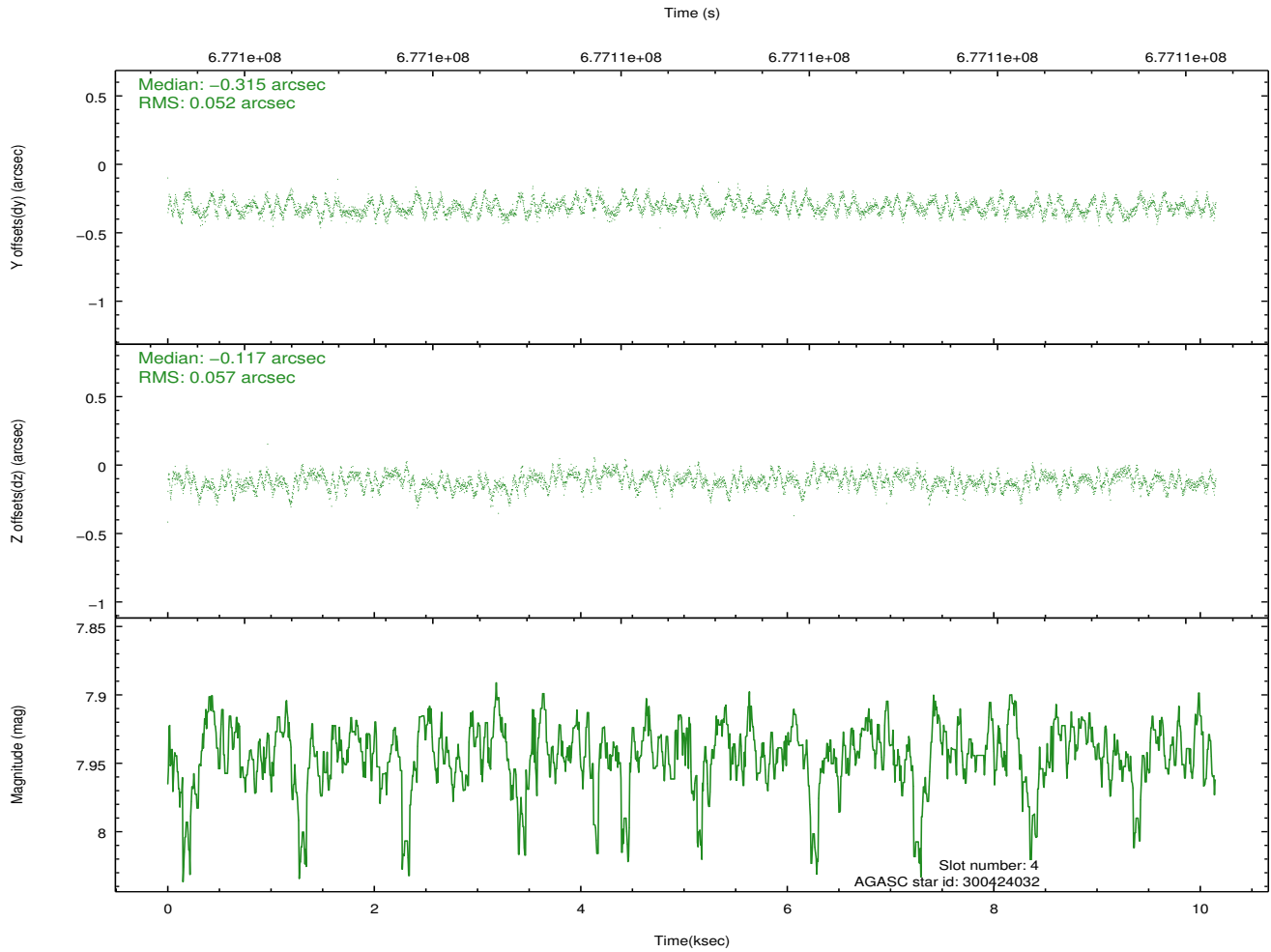
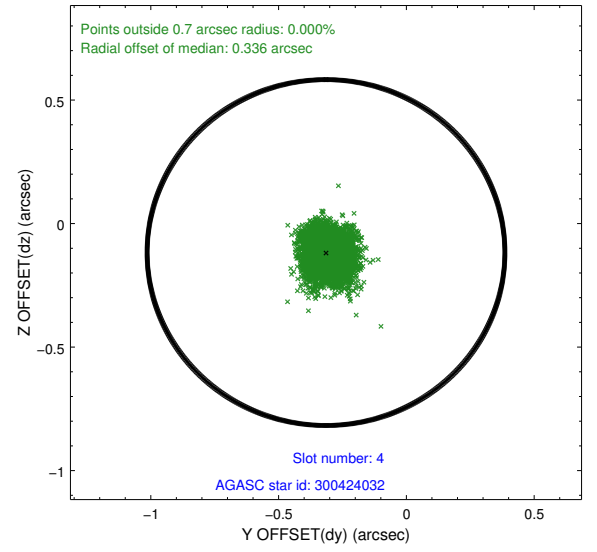
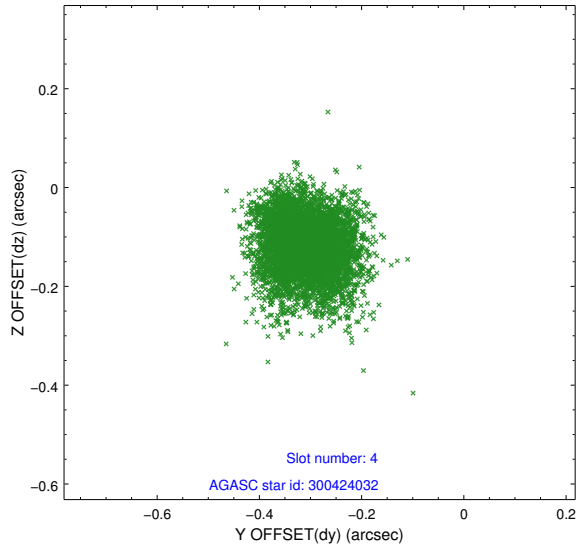
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.08	2477	1.000	-0.285	-0.087	0.018	0.032	0.000000	0.000000	-757.73	-1736
1	FID		ACIS-S-4	7.21	2477	1.000	0.596	0.162	0.018	0.034	0.000000	0.000000	2156.14	171
2	FID		ACIS-S-5	7.20	2476	1.000	-0.341	-0.066	0.008	0.013	0.000000	0.000000	-1810.01	165
3	GUIDE	used	230039080	8.62	4950	1.000	0.476	0.407	0.109	0.168	23.320866	29.887774	-2326.14	90
4	GUIDE	used	300424032	7.94	4949	1.000	-0.315	-0.117	0.082	0.131	22.464019	31.007337	2050.93	2121
5	GUIDE	used	300558472	7.95	4952	1.000	-0.041	-0.339	0.083	0.134	22.523923	30.150572	-1024.55	2408
6	GUIDE	used	300559960	7.87	4951	1.000	-0.129	0.053	0.082	0.134	22.944463	30.624765	467.51	861
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0

2.4 Star Slots

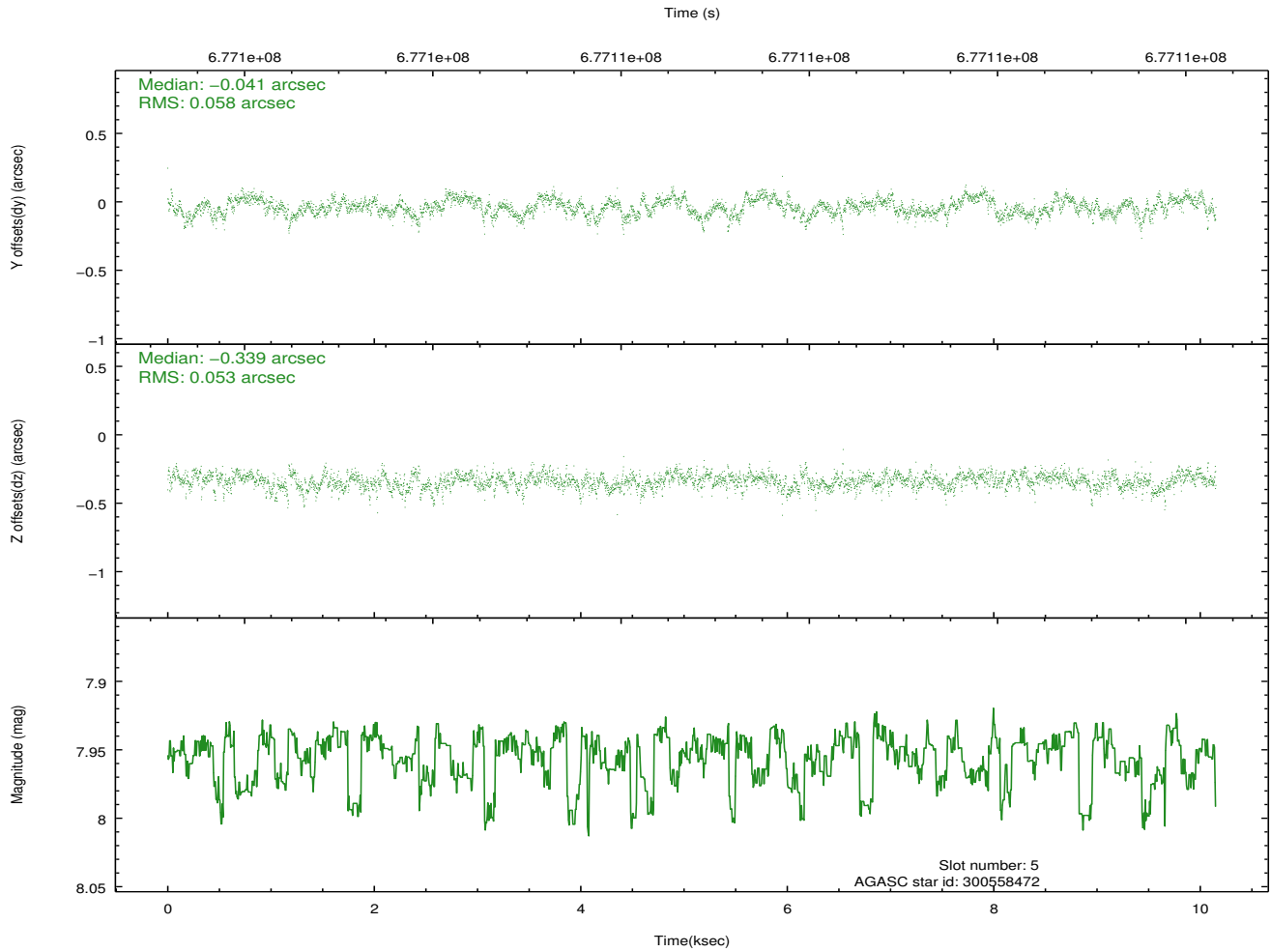
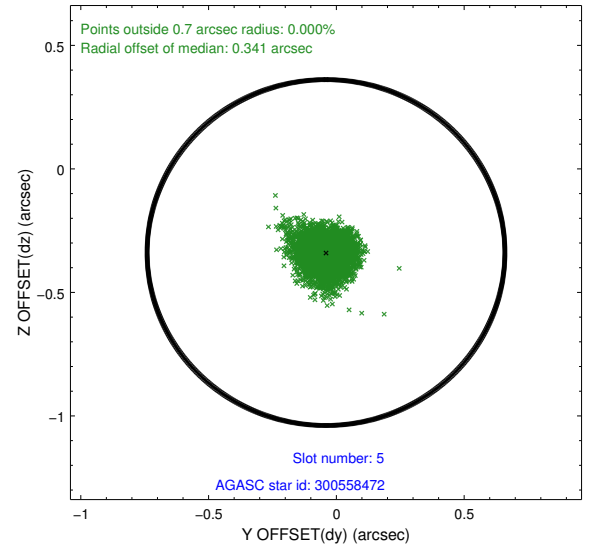
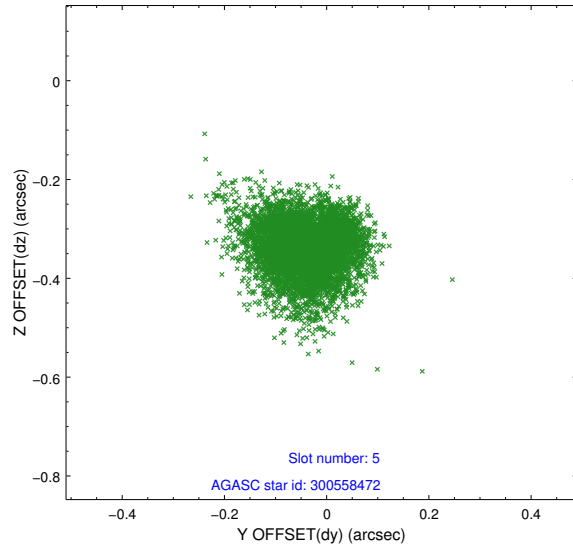
2.4.1 Slot 3



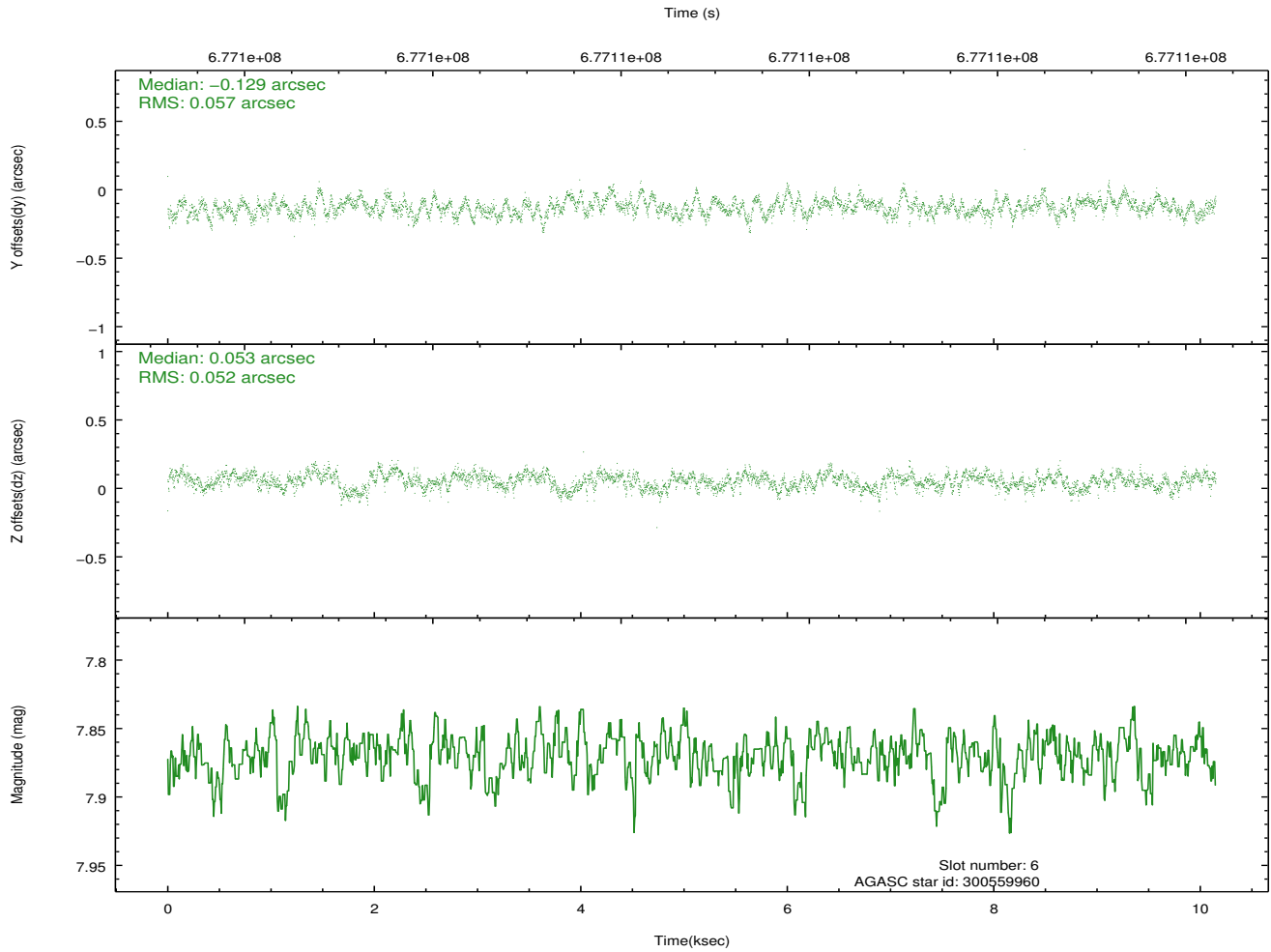
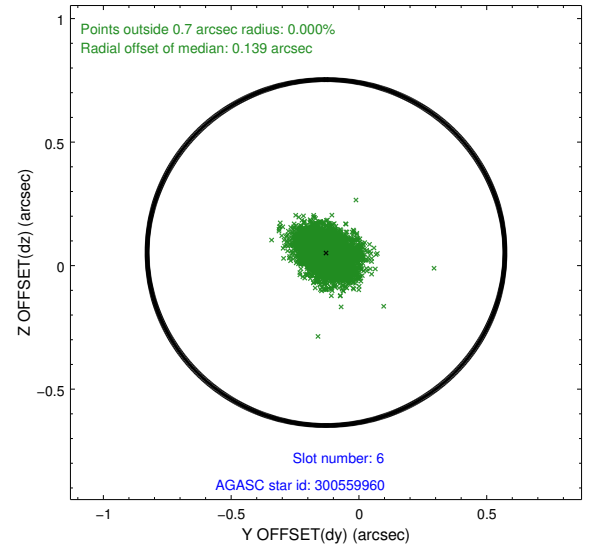
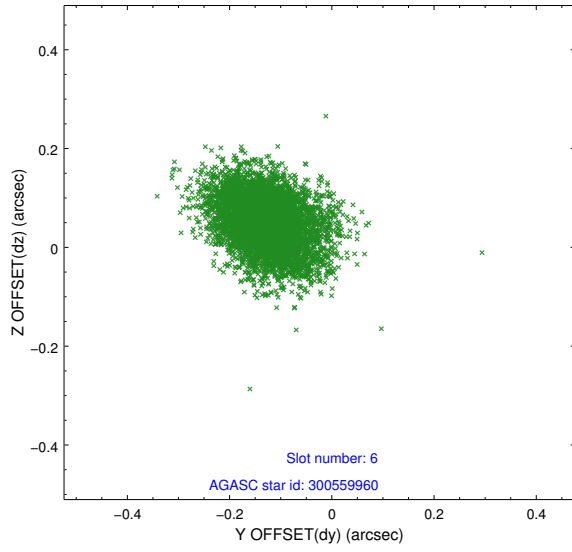
2.4.2 Slot 4



2.4.3 Slot 5

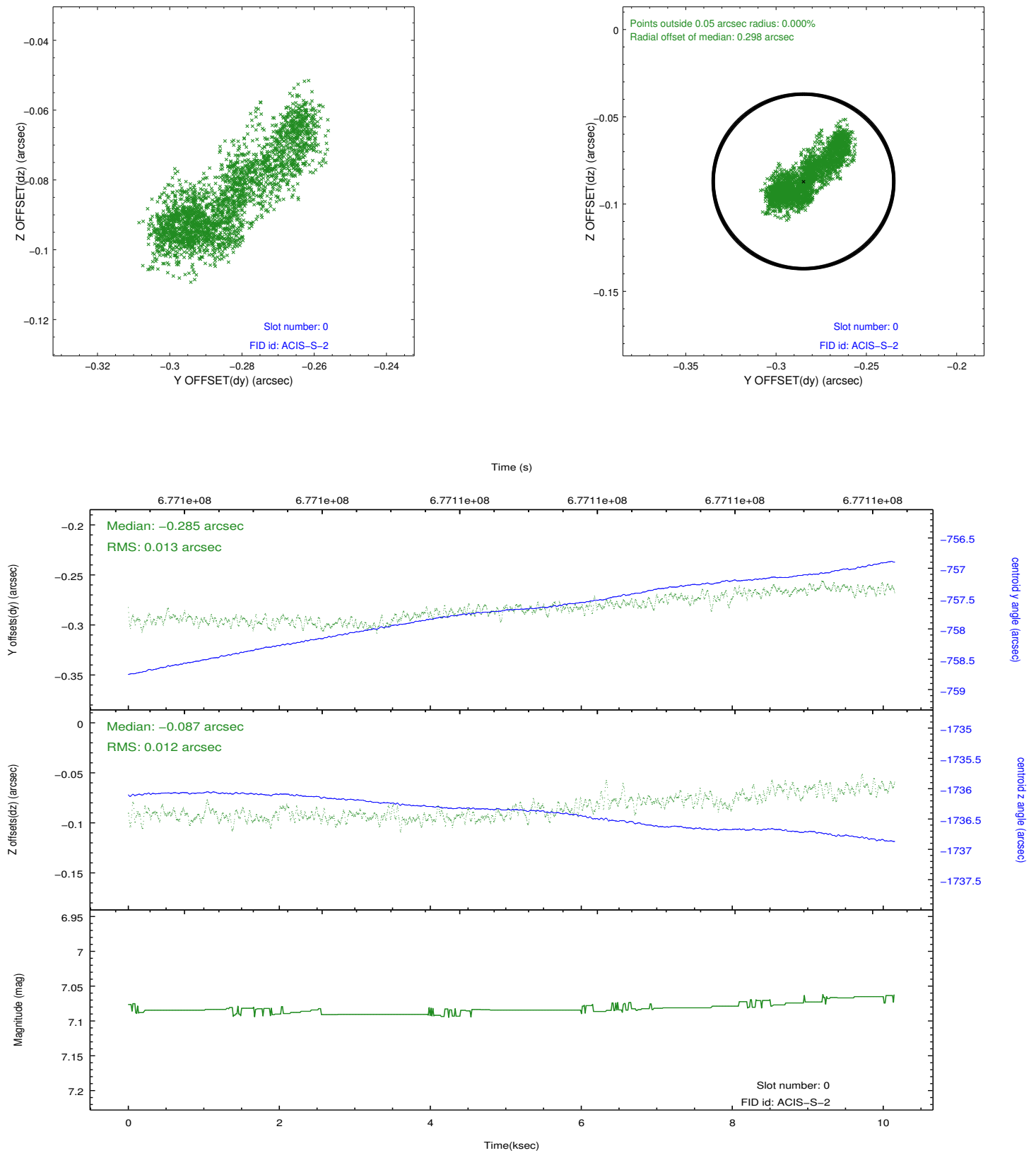


2.4.4 Slot 6

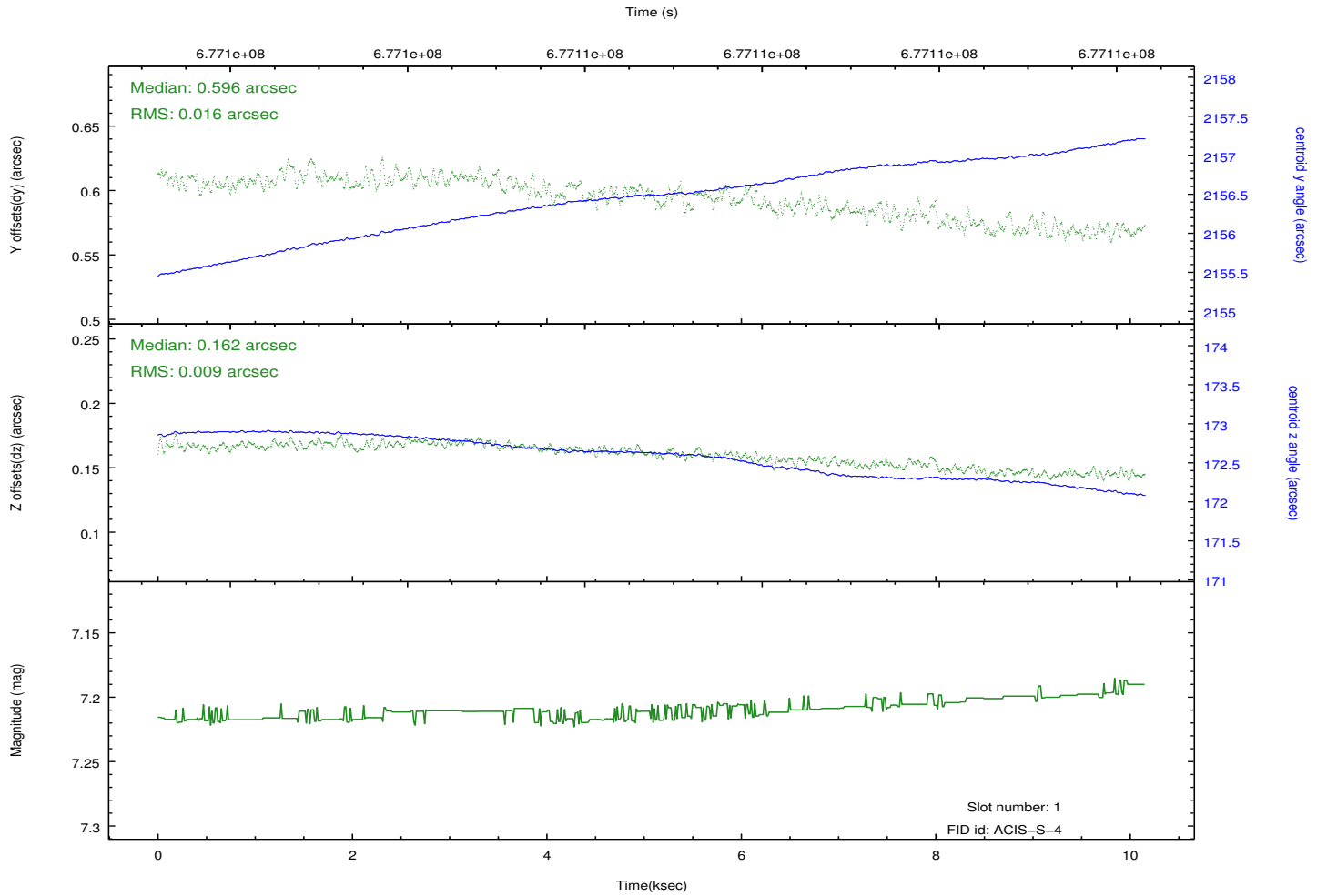
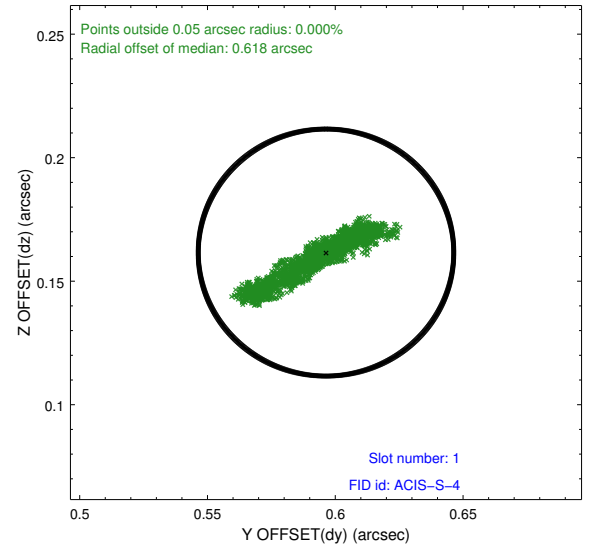
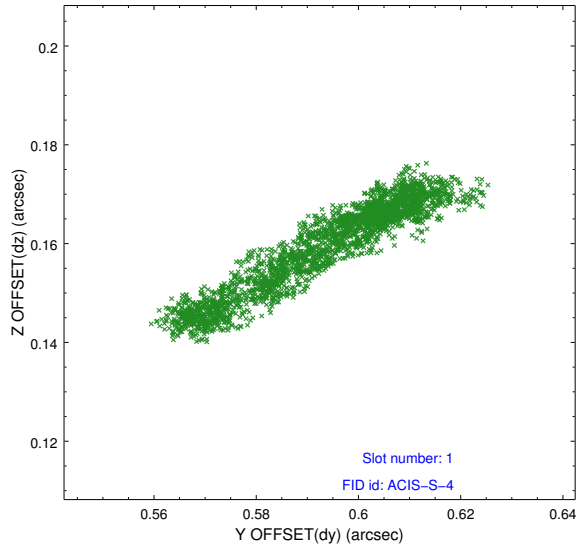


2.5 FID Slots

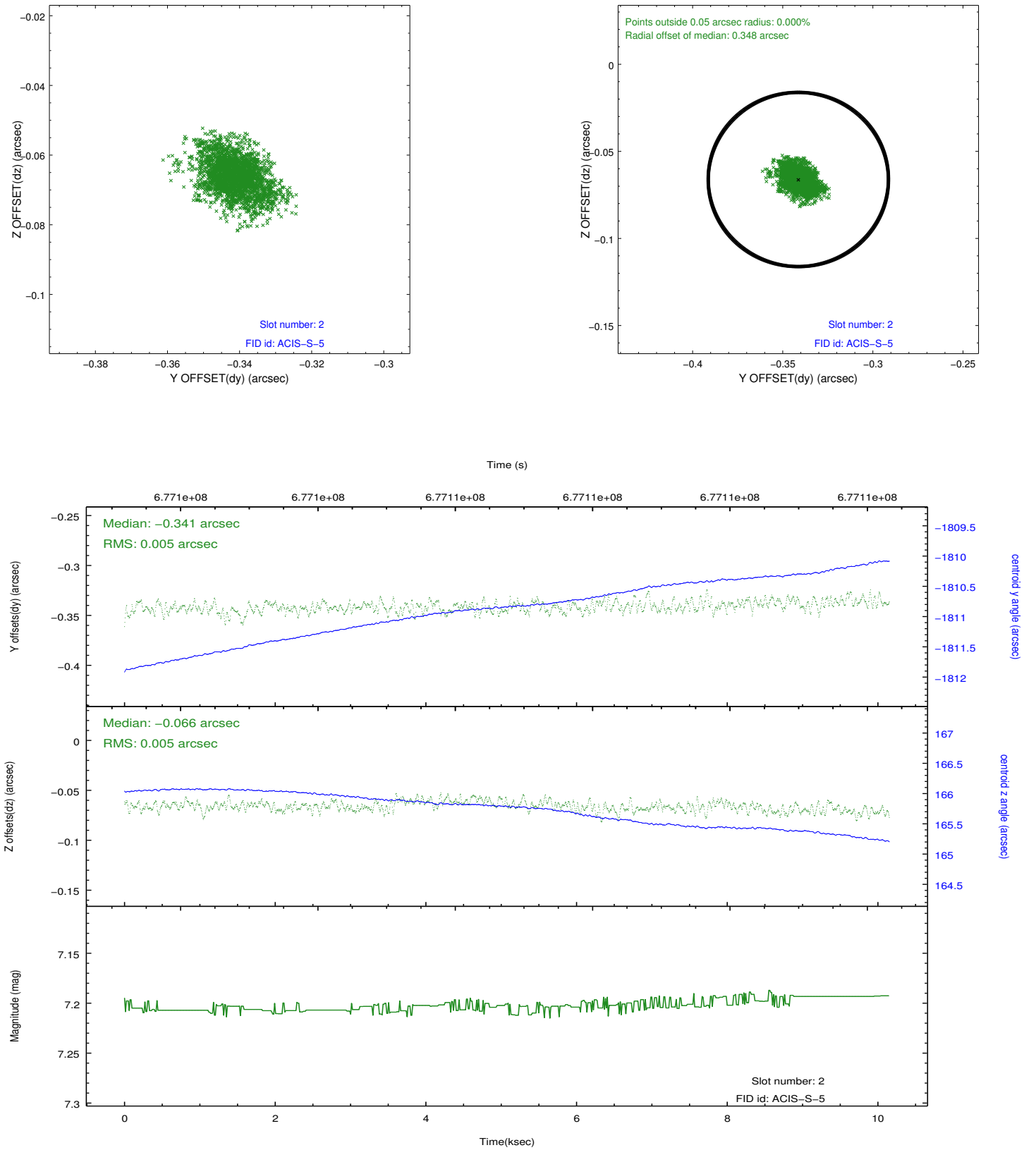
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2019.06.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.091905769229

A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution.