

V&V Reference Report

L2 ASCDS Version : 10.4.3

Observation 16746 - L2 Version 1
Chandra X-Ray Center

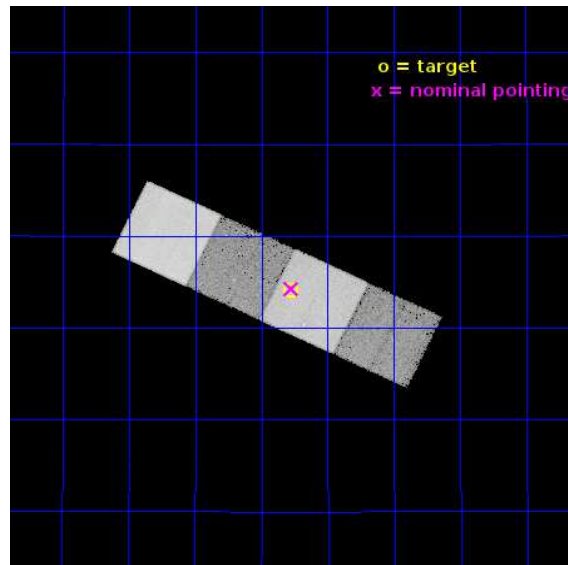
L2 Processing Date : Dec 23 2015

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1 Front

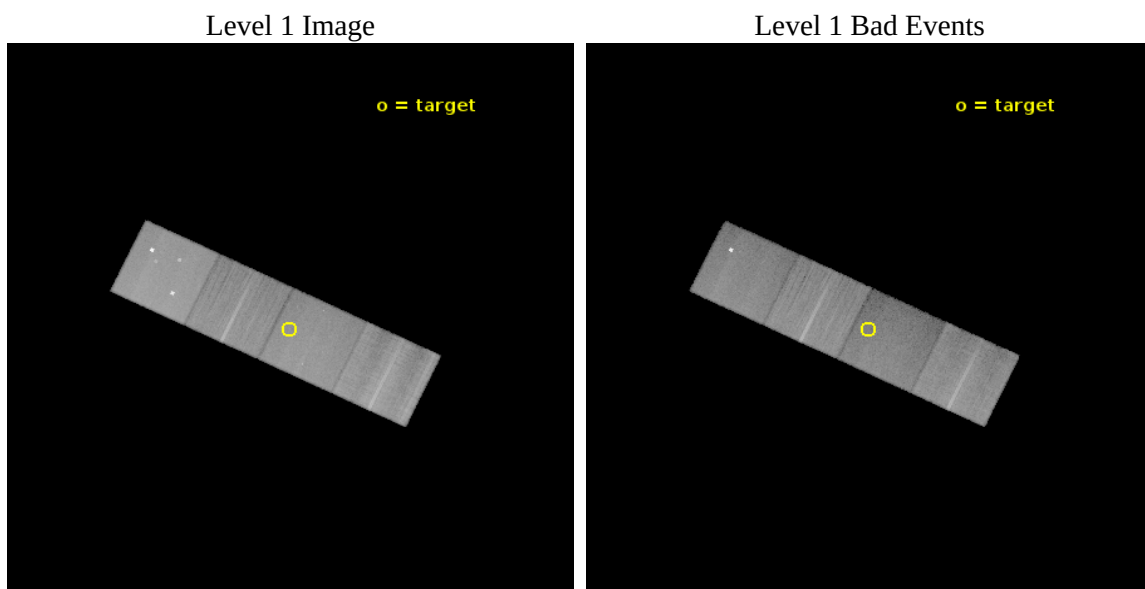
seq_num	401668	Sequence number
obs_id	16746	Observation id
title	Constraining Neutron Star Properties with Chandra Observations of Millisecond Pulsars	Proposal title
observer	Dr. Tod Strohmayer	Principal investigator
object	PSR J1640+2224	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	250.069583	Observer's specified target RA [deg]
dec_targ	22.402472	Observer's specified target Dec [deg]
ra_nom	250.06843455719	Nominal RA [deg]
dec_nom	22.404599271504	Nominal Dec [deg]
roll_nom	25.586071068763	Nominal Roll [deg]
revision	1	Processing version of data
ontime	41334.006213427	Sum of GTIs [s]
livetime	40793.946992595	Livetime [s]
ontime5	41333.965173483	Sum of GTIs [s]
ontime6	41333.92413342	Sum of GTIs [s]
ontime7	41334.006213427	Sum of GTIs [s]
ontime8	41327.60121274	Sum of GTIs [s]
l2events	318247	Number of level 2 events



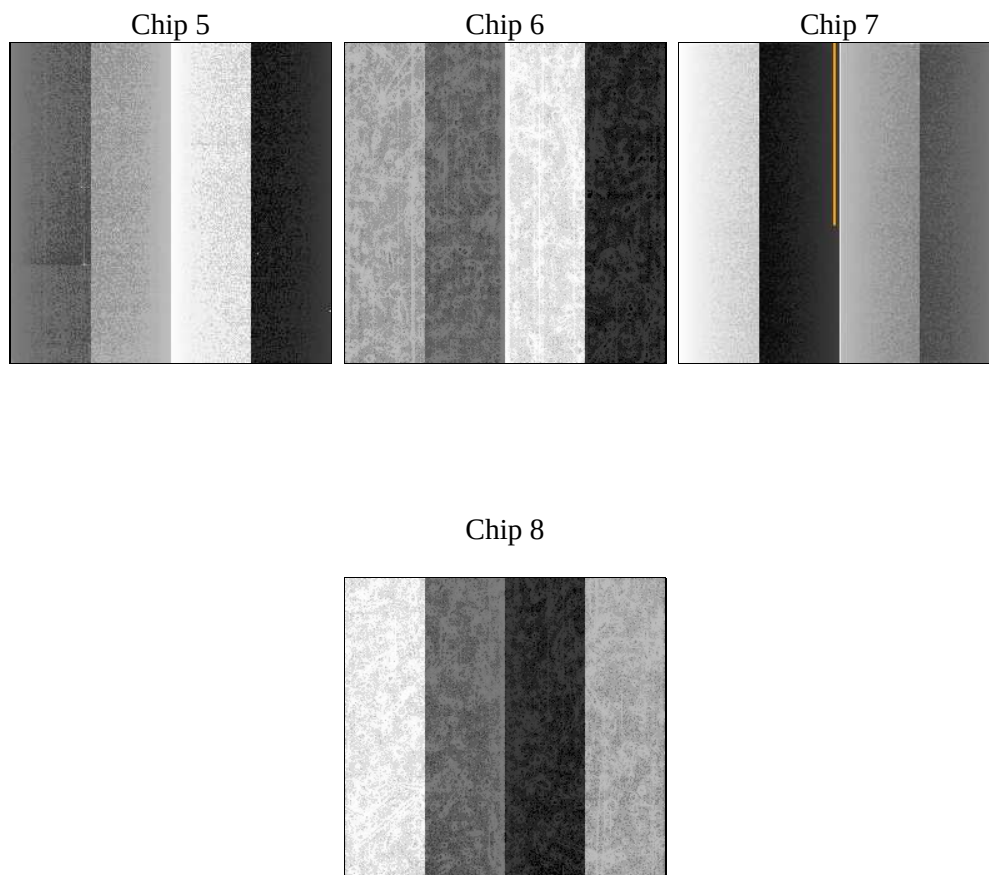
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	41226.692000	[s] Scheduled observation exposure time
ascdsver	10.4.3	Processing system revision	ontime	41334.006213427	Sum of GTIs [s]
caldsver	4.7.0	 	ontime5	41333.965173483	Sum of GTIs [s]
date	2015-12-24T03:50:51	Date and time of file creation	ontime6	41333.92413342	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	41334.006213427	Sum of GTIs [s]
			ontime8	41327.60121274	Sum of GTIs [s]
			l1events	1103991	Number of level 1 events

2.1.4 Events

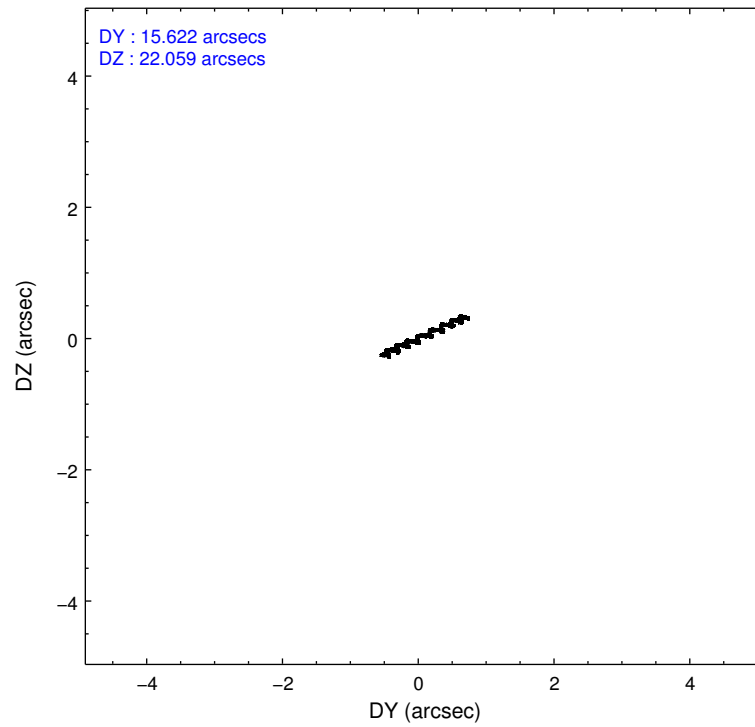
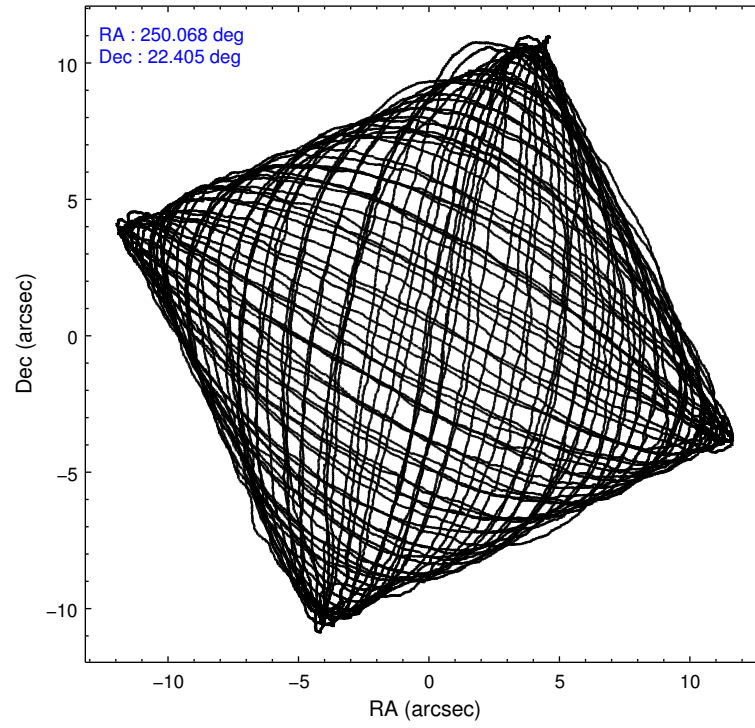
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	343882	224639	245727	289743
rejected events	167512	199018	127997	208450
rejected %	48%	88%	52%	71%

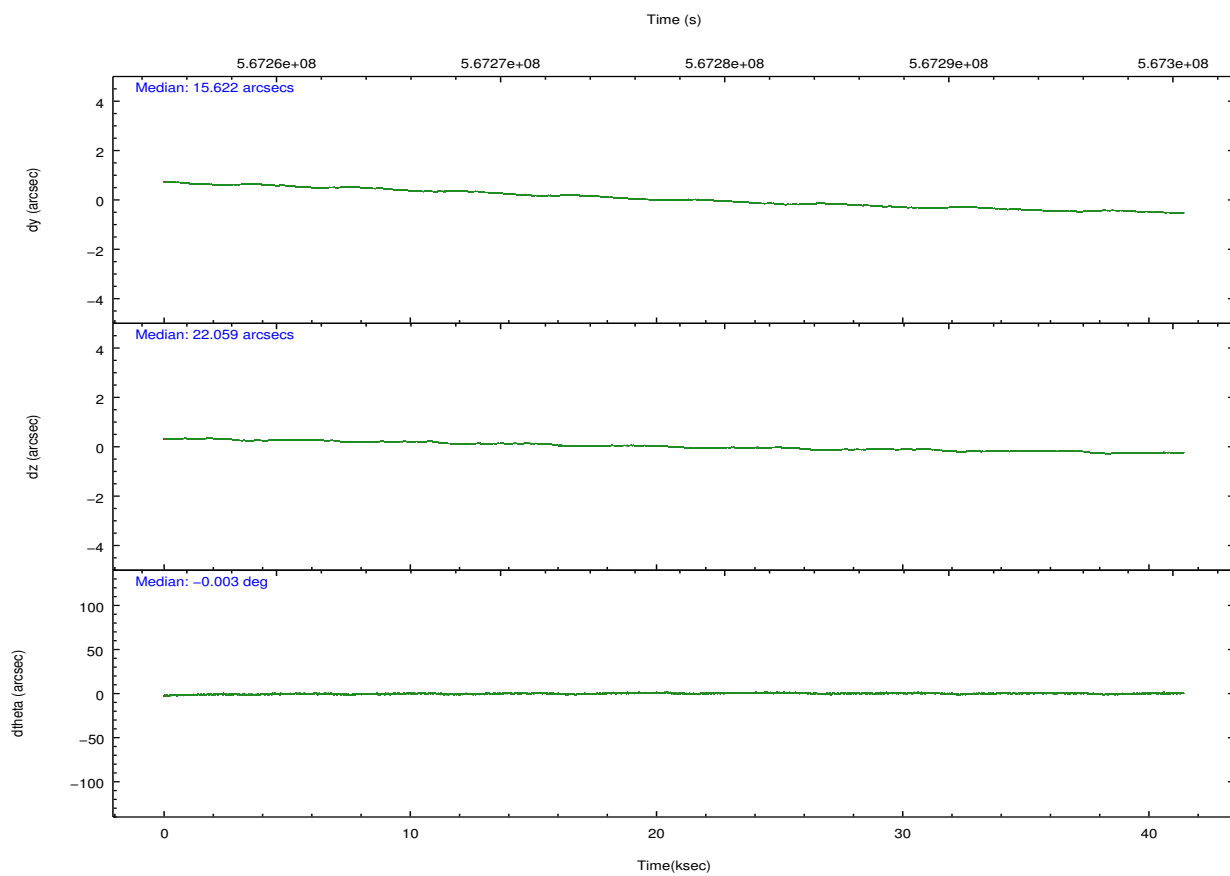
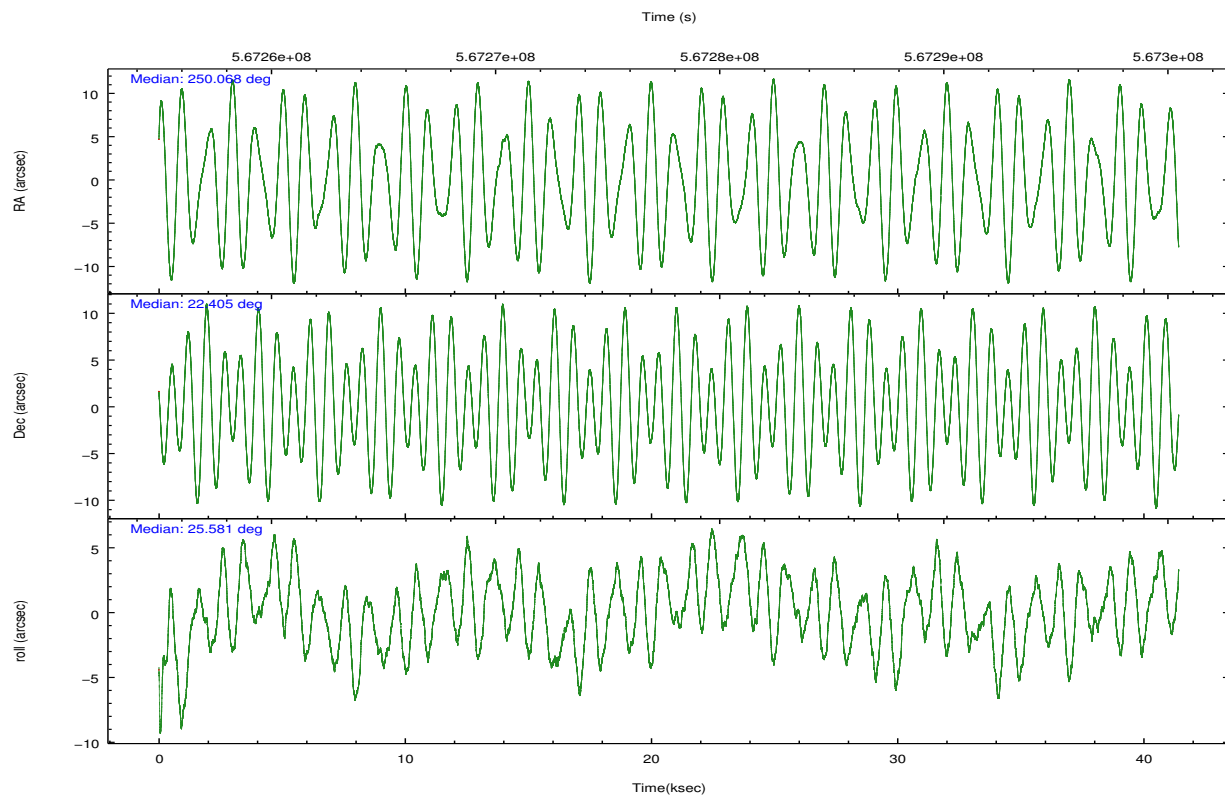
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	21911	9020	11346	22603
	6%	4%	4%	7%
grade 1 events	720	119	426	251
	0%	0%	0%	0%
grade 2 events	55244	5979	25995	20047
	16%	2%	10%	6%
grade 3 events	6002	2642	10258	8517
	1%	1%	4%	2%
grade 4 events	5795	2593	9988	8099
	1%	1%	4%	2%
grade 5 events	27302	9271	26310	14553
	7%	4%	10%	5%
grade 6 events	87446	5389	60154	22038
	25%	2%	24%	7%
grade 7 events	139462	189626	101250	193635
	40%	84%	41%	66%

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	250.051982	250.0684345571854	Subarray requested	NONE	NONE
[deg] Pointing Dec	22.381758	22.40459927150352	Alternating exposures requested	N	N
[deg] Pointing Roll	25.435712	25.5860710687631	[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	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	567257208.184000	567255967.9855			
Observation start date	2015-12-23T11:25:40	2015-12-23T11:06:07			
[s] Observation end time (MET)	567298434.184000	567298660.26292			
Observation end date	2015-12-23T22:52:46	2015-12-23T22:57:40			
Read mode	TIMED	TIMED			

2.3 Aspect



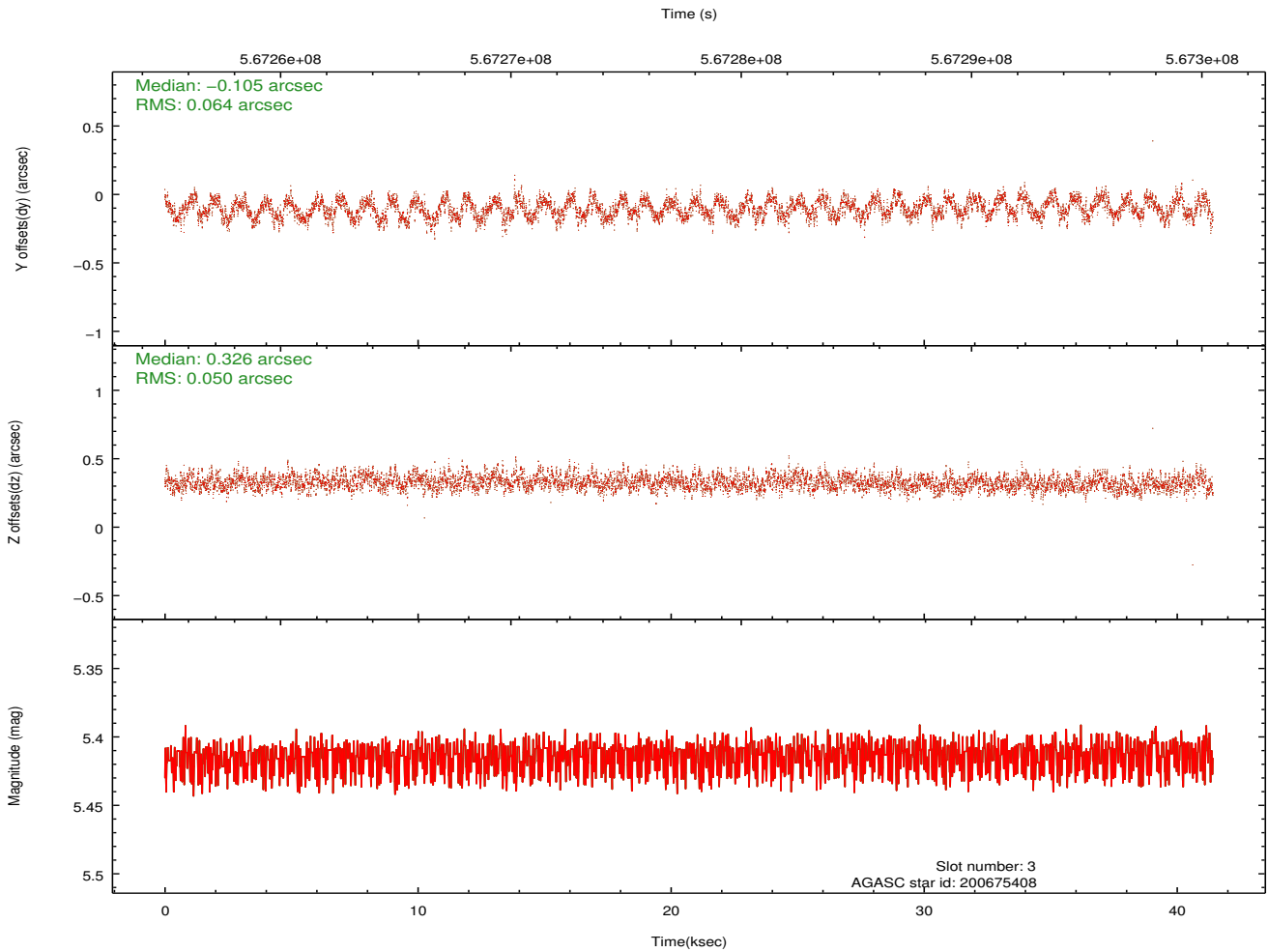
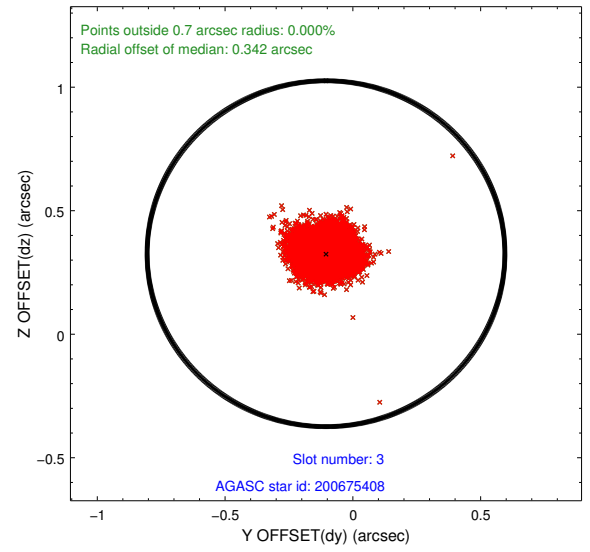
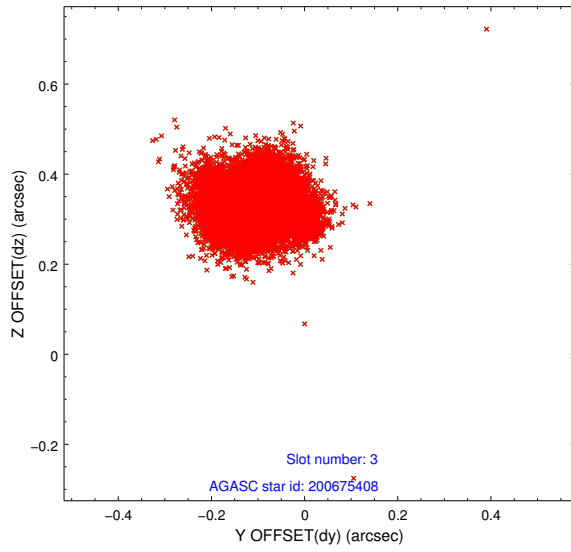


Slot Statistics

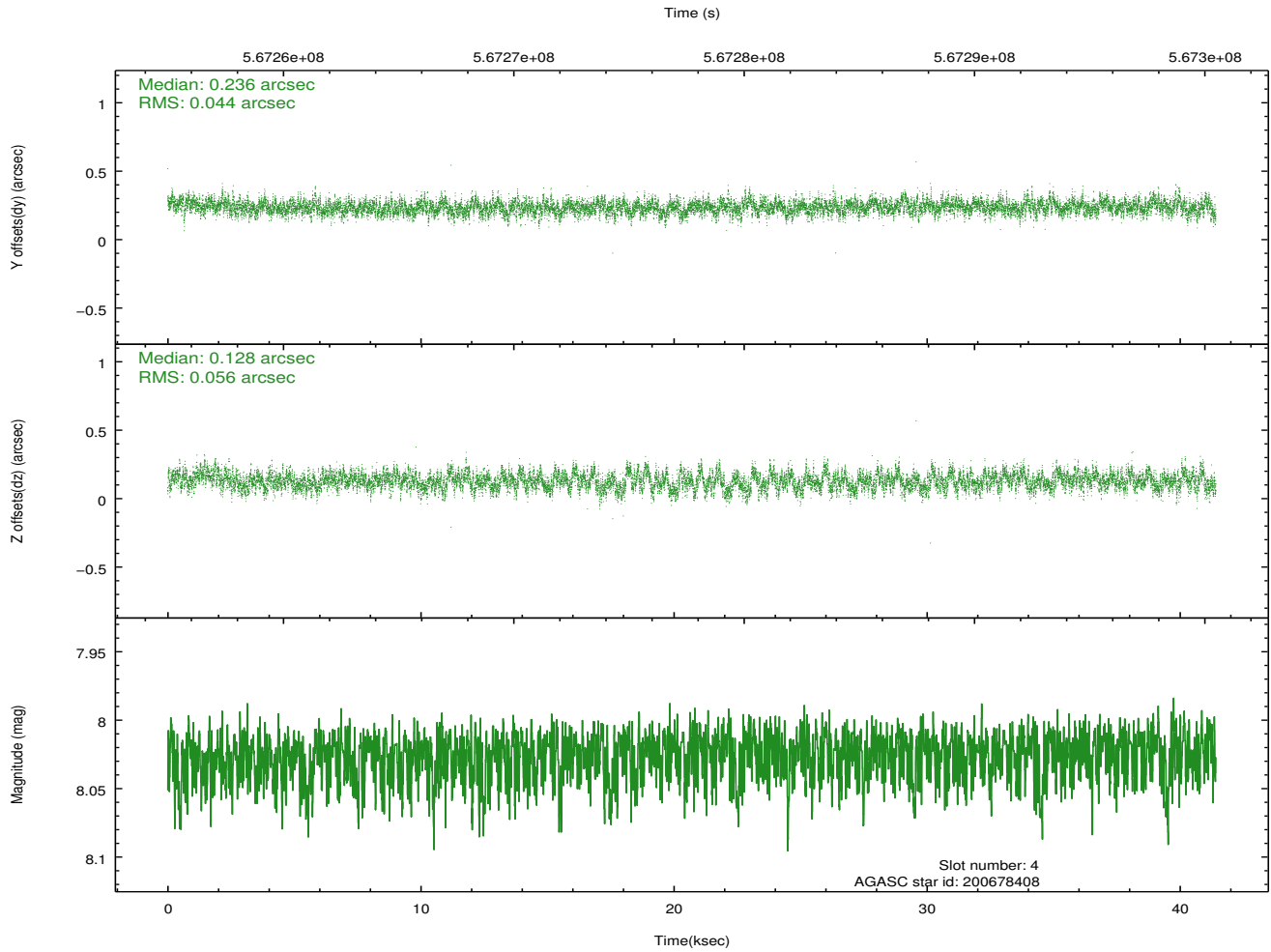
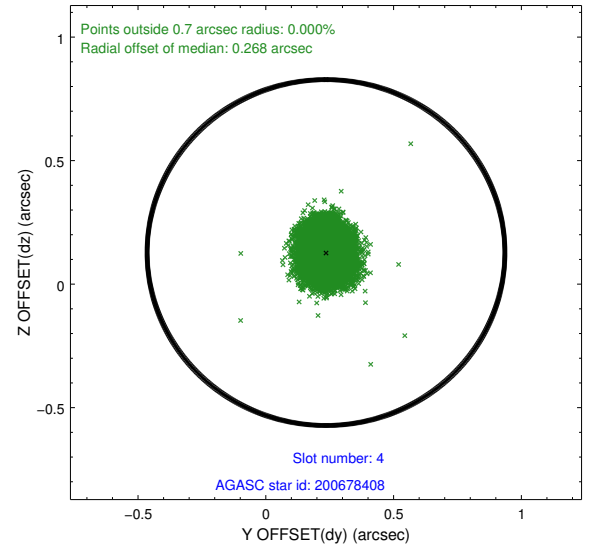
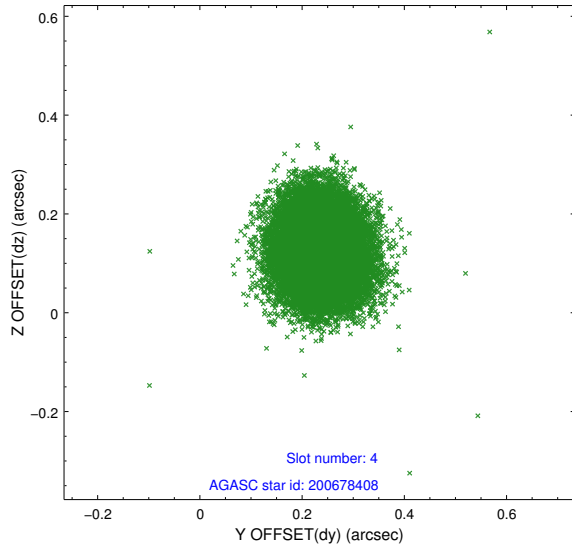
lot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		ACIS-S-2	7.11	10102	-0.166	-0.113	0.013	0.020	0.000000	0.000000	-768.85	-1743.74
1	FID		ACIS-S-4	7.21	10102	0.369	0.111	0.011	0.018	0.000000	0.000000	2144.99	164.90
2	FID		ACIS-S-5	7.23	10103	-0.233	0.011	0.012	0.018	0.000000	0.000000	-1821.72	158.55
3	BAD	used	200675408	5.41	10104	-0.105	0.326	0.088	0.132	249.406924	22.444880	-1838.62	1130.68
4	GUIDE	used	200678408	8.03	20196	0.236	0.128	0.076	0.123	249.757570	21.687946	-1961.22	-1831.96
5	GUIDE	used	200804056	7.06	20203	-0.443	-0.824	0.087	0.144	250.329390	22.436743	918.75	-217.94
6	GUIDE	used	200812112	9.19	20189	0.246	0.528	0.147	0.243	250.524135	21.858172	616.88	-2376.87
7	GUIDE	used	268049496	8.73	20110	0.002	0.009	0.170	0.242	250.236422	22.768075	1150.23	993.18

2.4 Star Slots

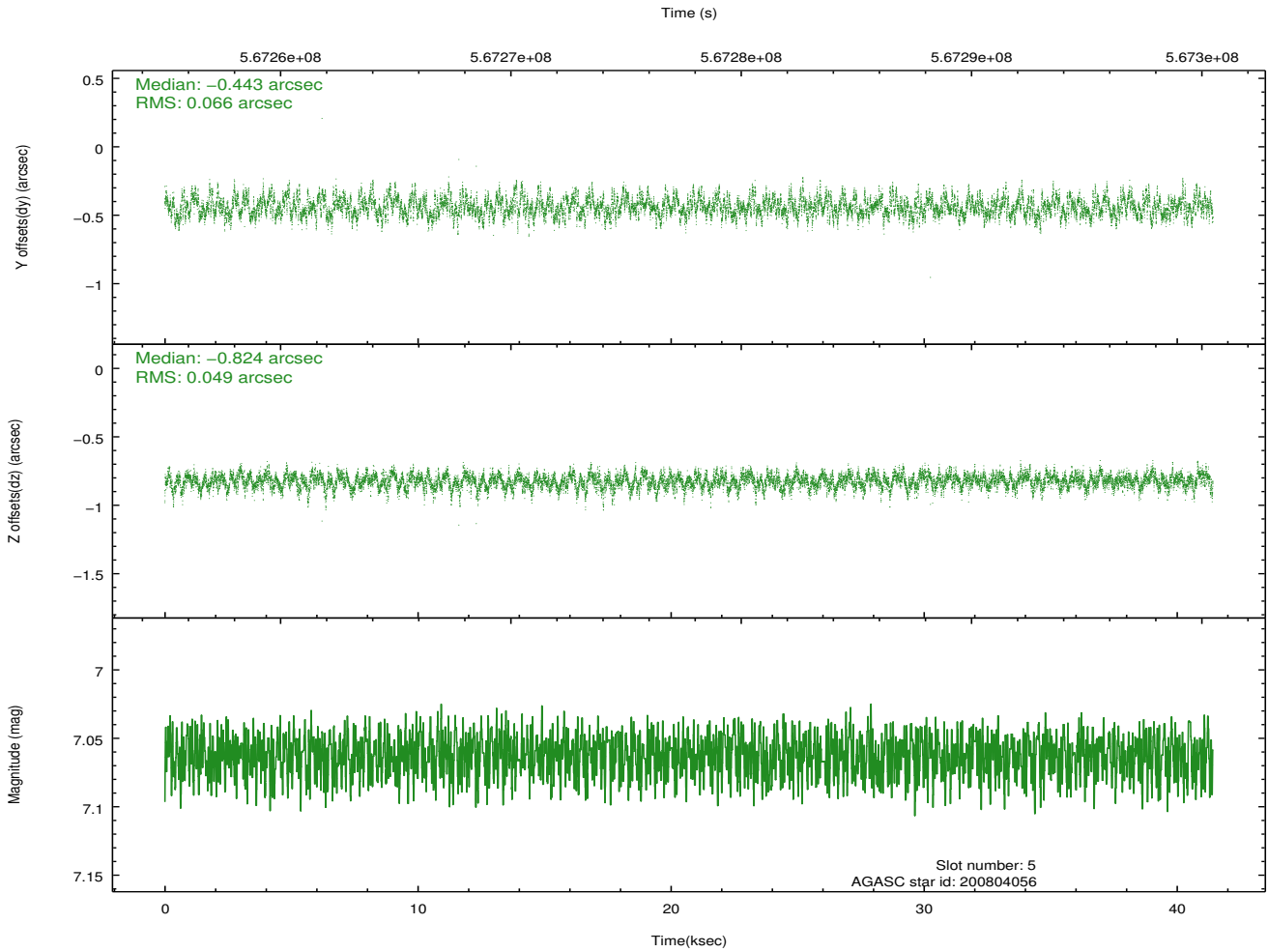
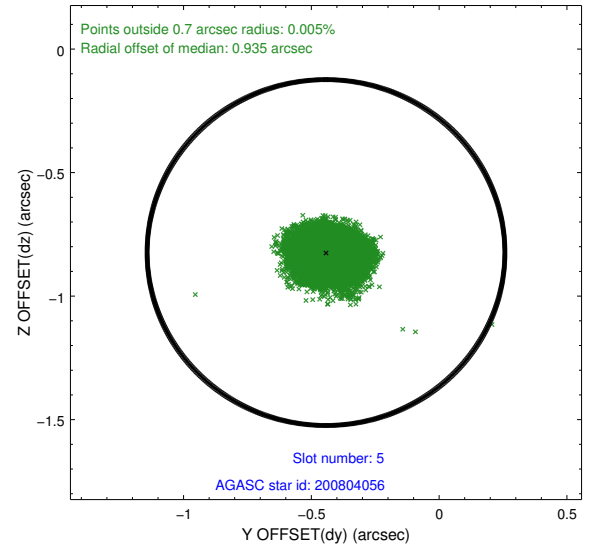
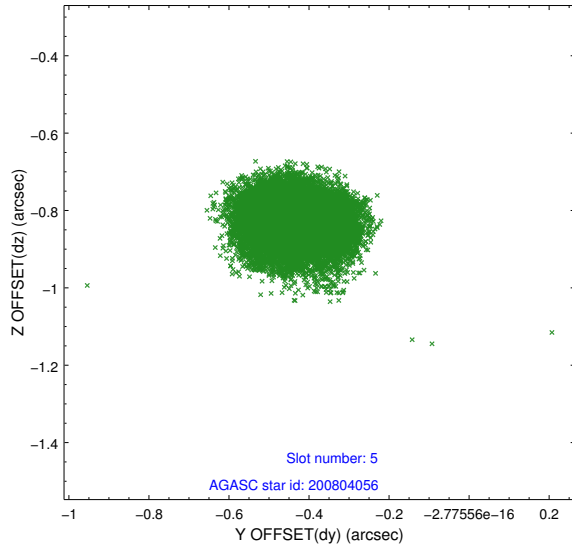
2.4.1 Slot 3



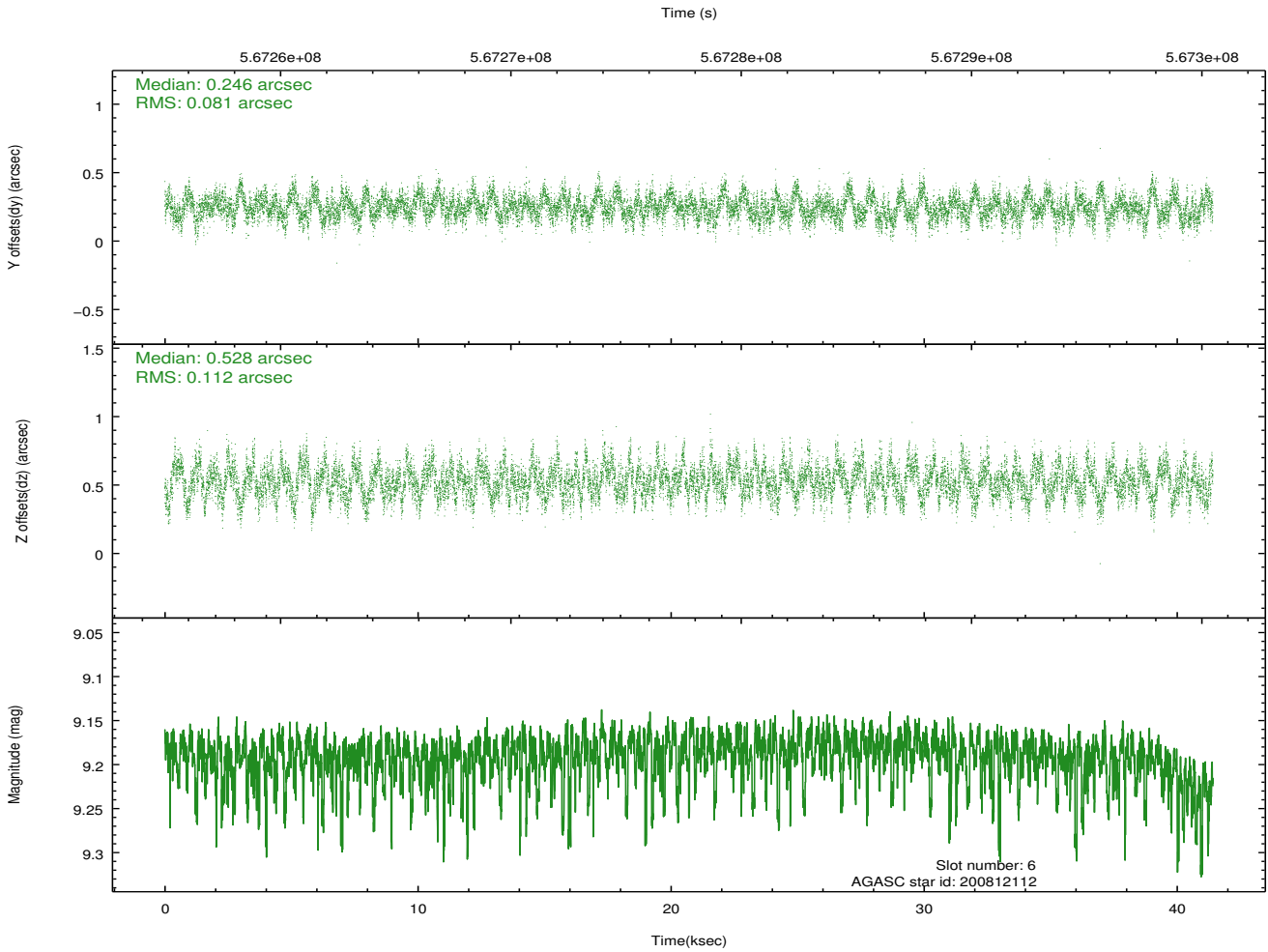
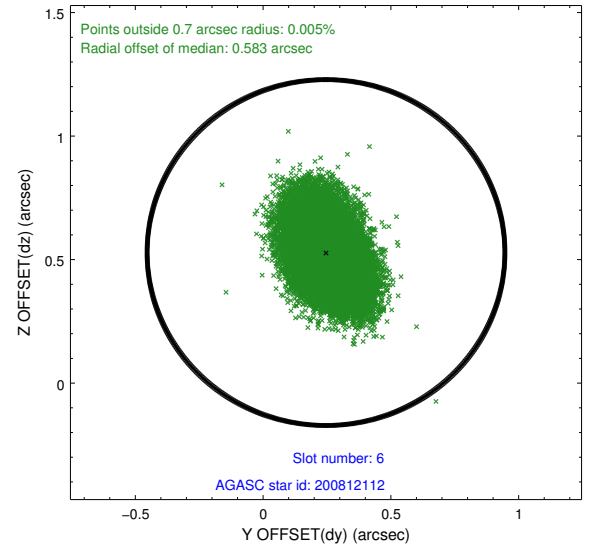
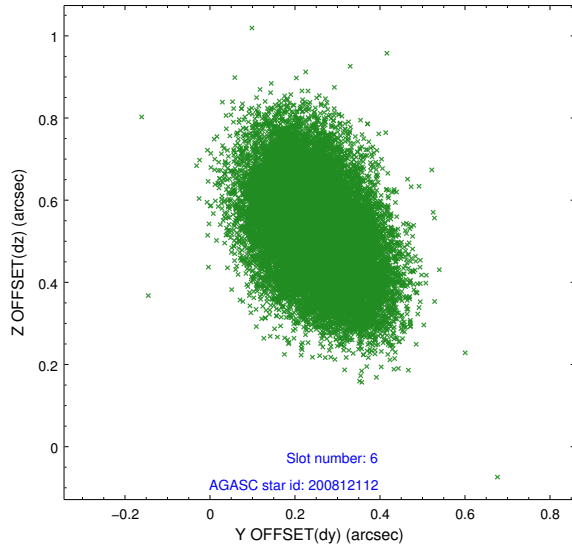
2.4.2 Slot 4



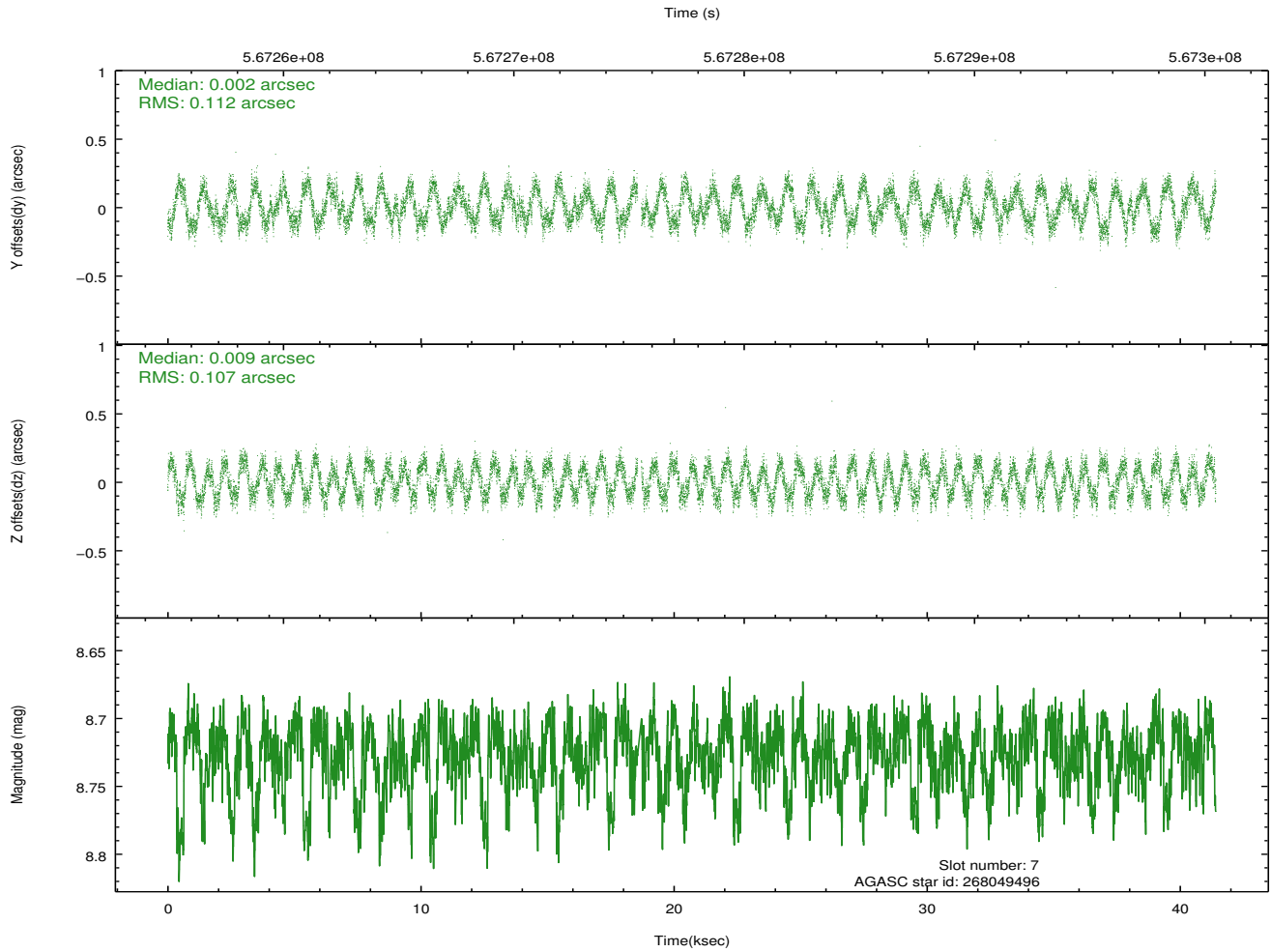
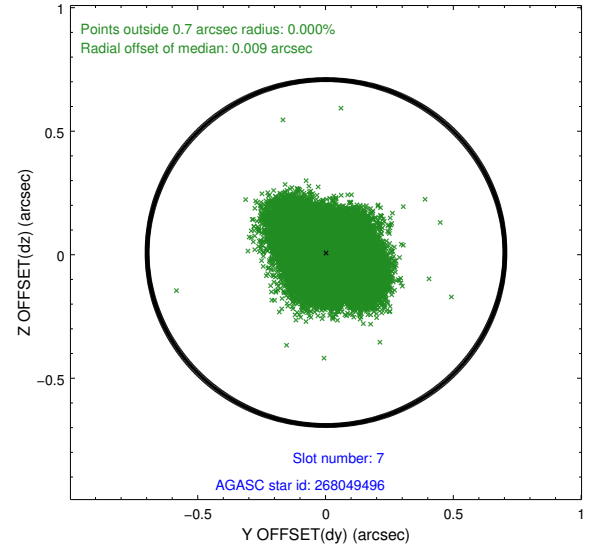
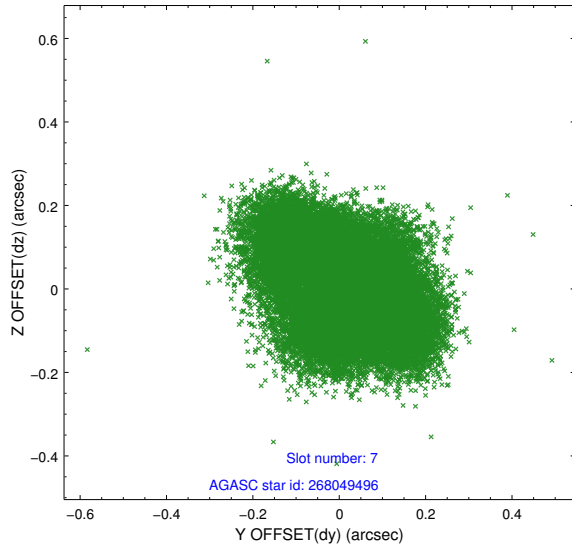
2.4.3 Slot 5



2.4.4 Slot 6

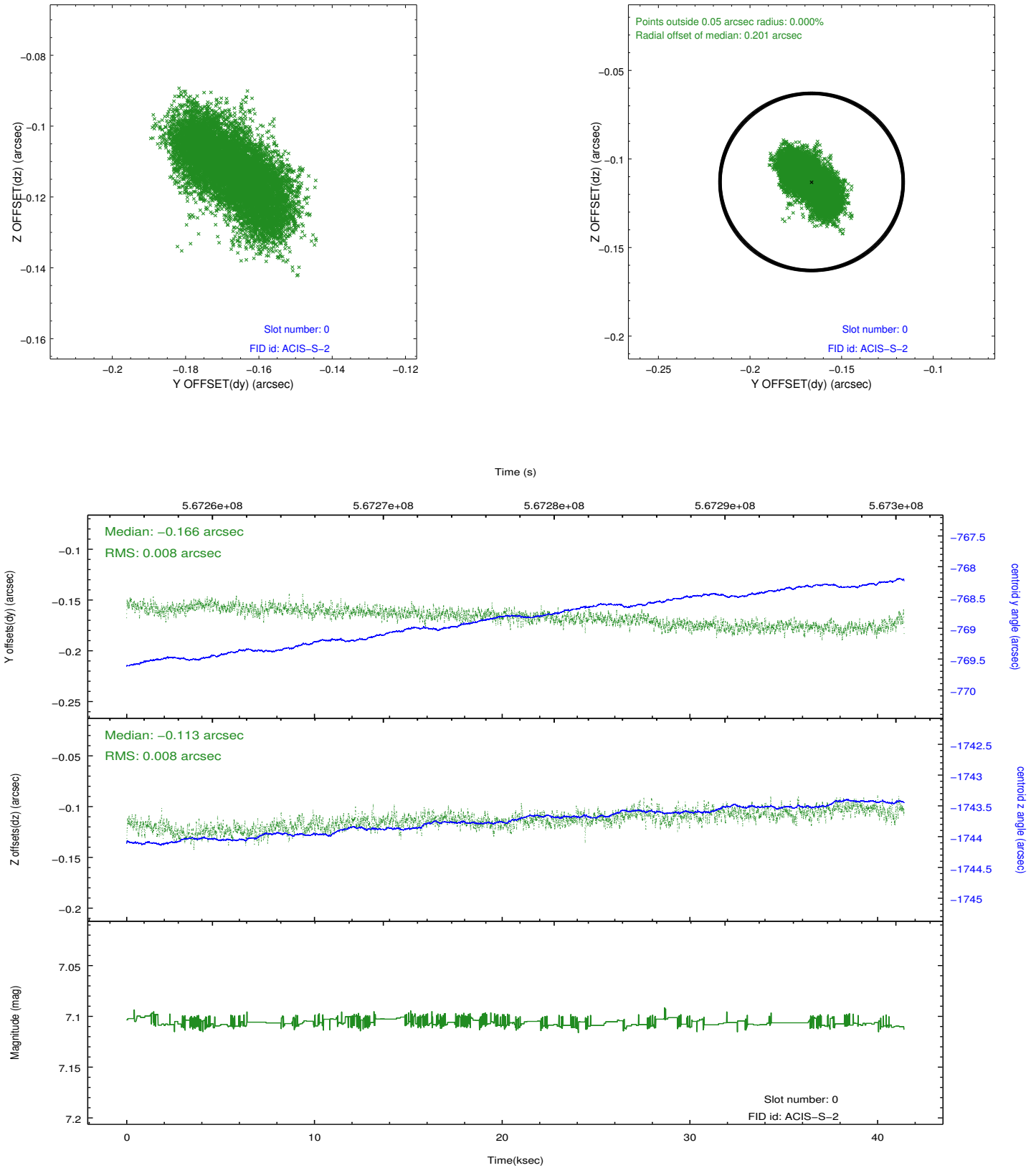


2.4.5 Slot 7

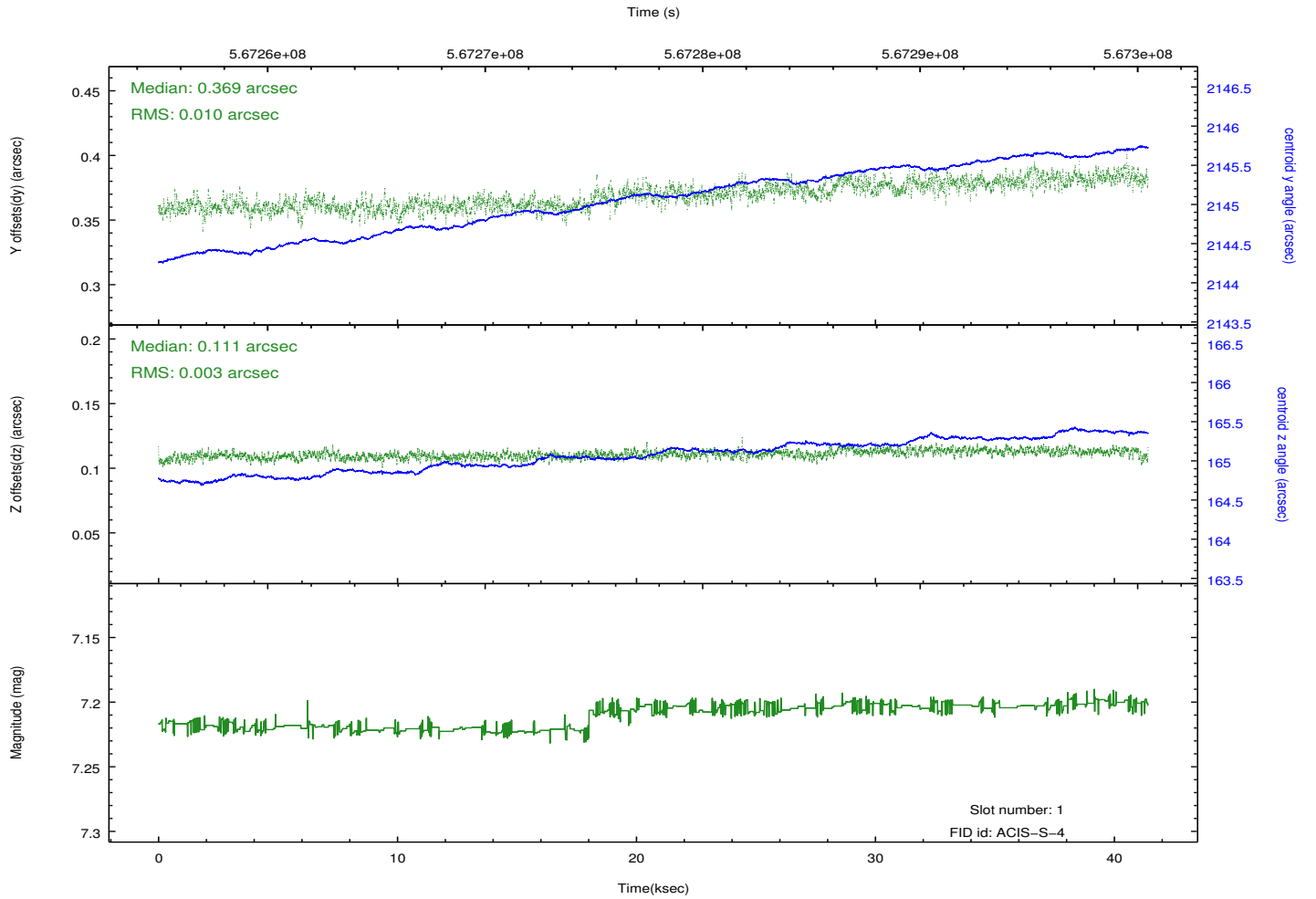
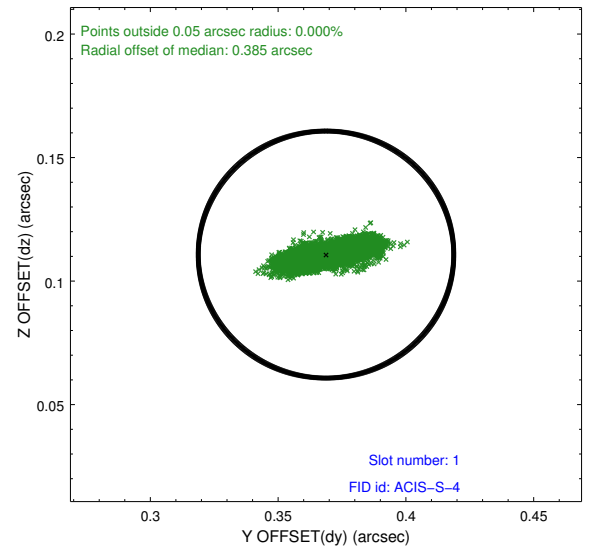
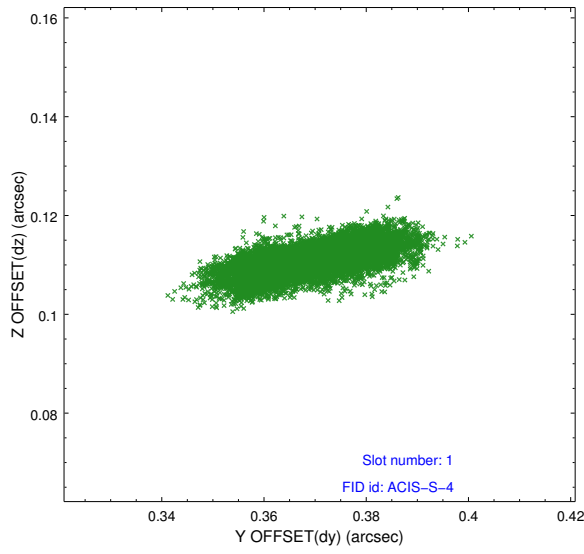


2.5 FID Slots

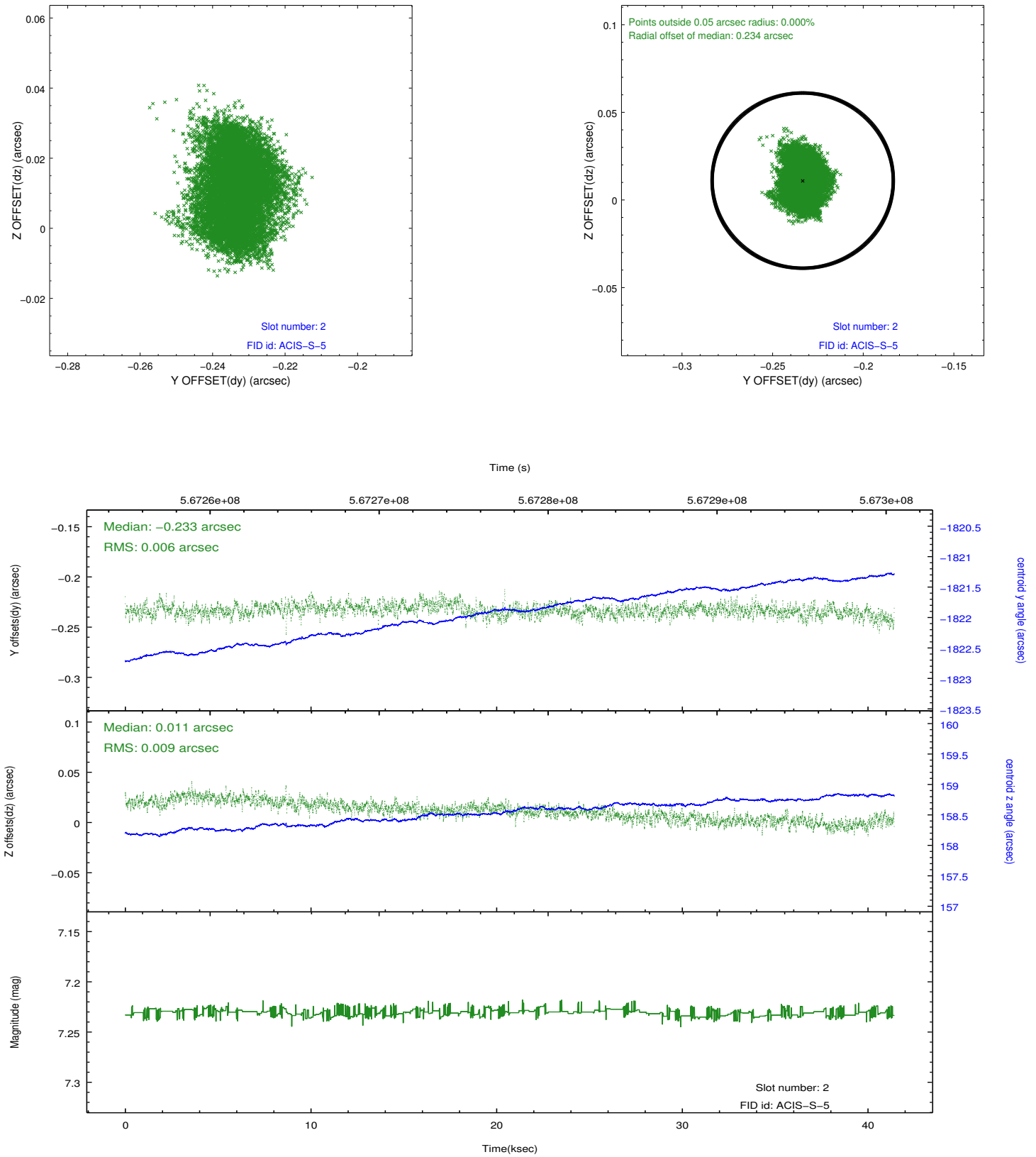
2.5.1 Slot 0



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)	2015.12.24
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.334006213427

A.2 Comments