

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 22056 - L2 Version 2
Chandra X-Ray Center

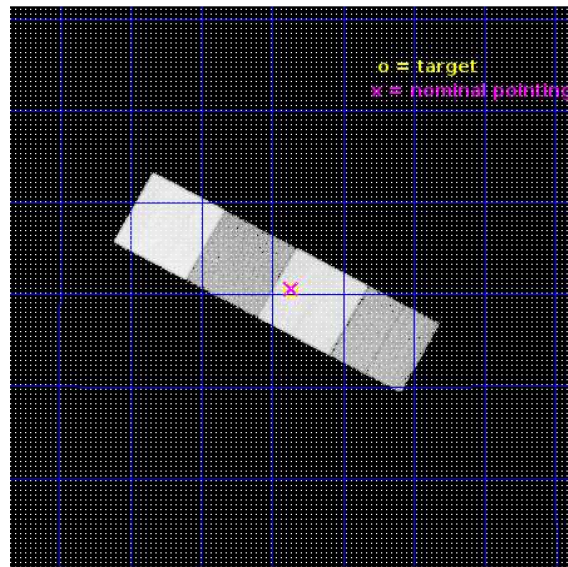
L2 Processing Date : Jan 31 2019

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1 Front

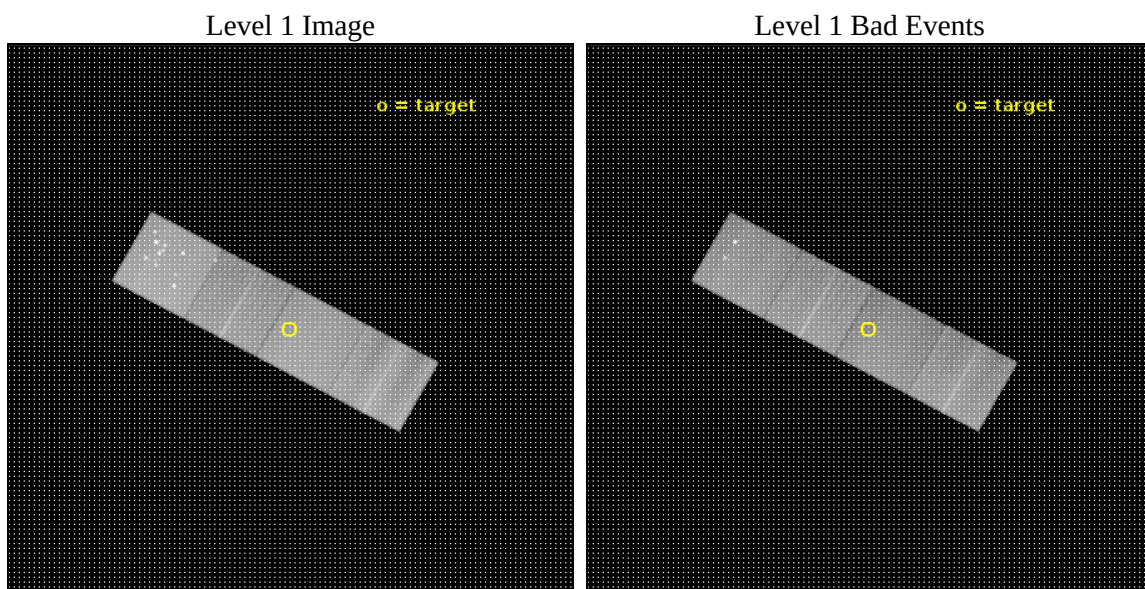
seq_num	703848	Sequence number
obs_id	22056	Observation id
title	Calibration of the quasar Hubble diagram with z	Proposal title
observer	Francesca Civano	Principal investigator
object	SDSSJ085051.97+083026.6	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	132.716568	Observer's specified target RA [deg]
dec_targ	8.5074	Observer's specified target Dec [deg]
ra_nom	132.71593347085	Nominal RA [deg]
dec_nom	8.510590657698	Nominal Dec [deg]
roll_nom	28.645997952311	Nominal Roll [deg]
revision	2	Processing version of data
ontime	34064.453530431	Sum of GTIs [s]
livetime	33619.37636717	Livetime [s]
ontime5	34064.412490487	Sum of GTIs [s]
ontime6	34061.230470181	Sum of GTIs [s]
ontime7	34064.453530431	Sum of GTIs [s]
ontime8	34064.33041048	Sum of GTIs [s]
l2events	386362	Number of level 2 events



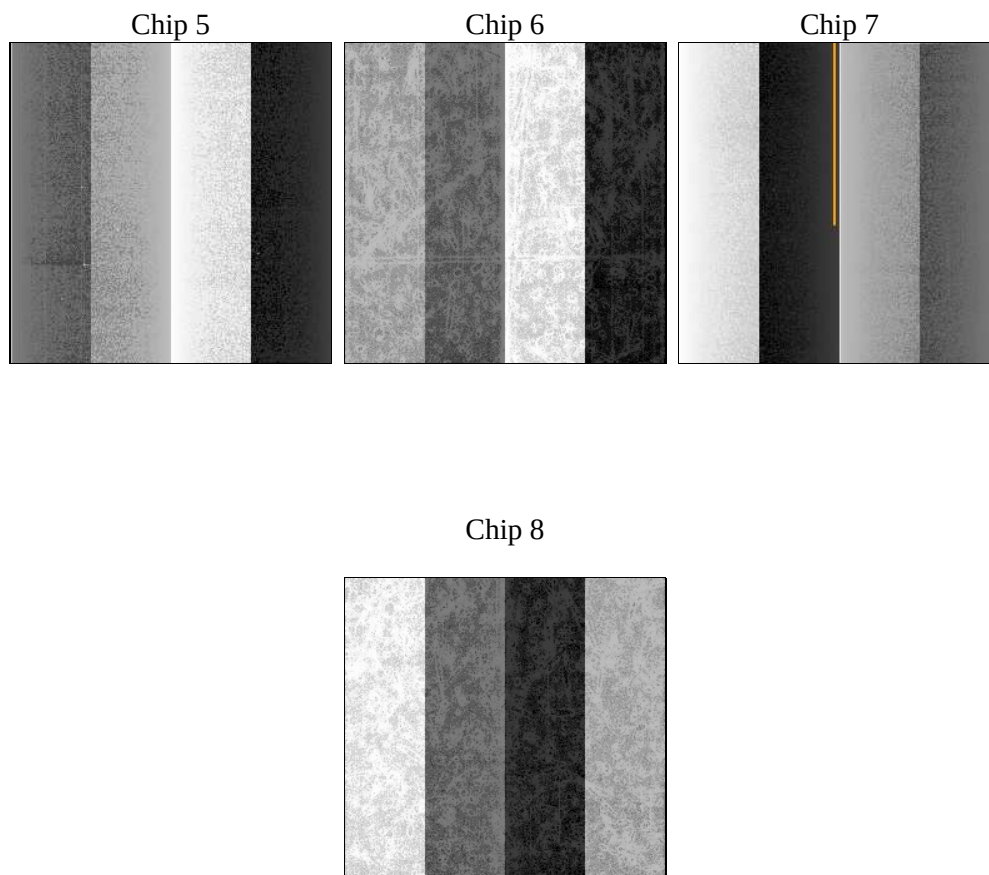
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	34000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	34064.453530431	Sum of GTIs [s]
caldsver	4.8.2	 	ontime5	34064.412490487	Sum of GTIs [s]
date	2019-01-31T19:52:24	Date and time of file creation	ontime6	34061.230470181	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	34064.453530431	Sum of GTIs [s]
			ontime8	34064.33041048	Sum of GTIs [s]
			l1events	1420400	Number of level 1 events

2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	476345	266232	336661	341162
rejected events	230639	236611	191543	247973
rejected %	48%	88%	56%	72%

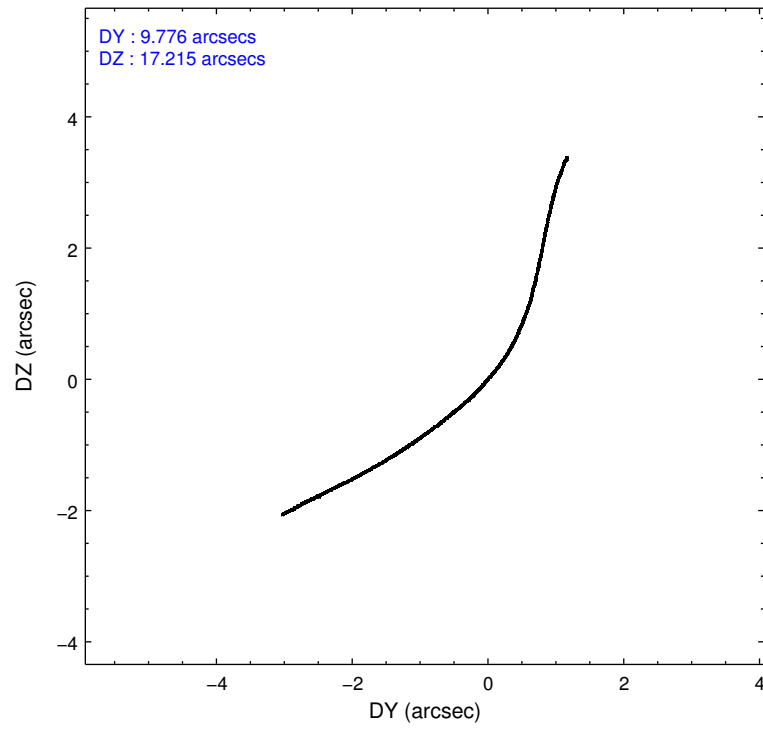
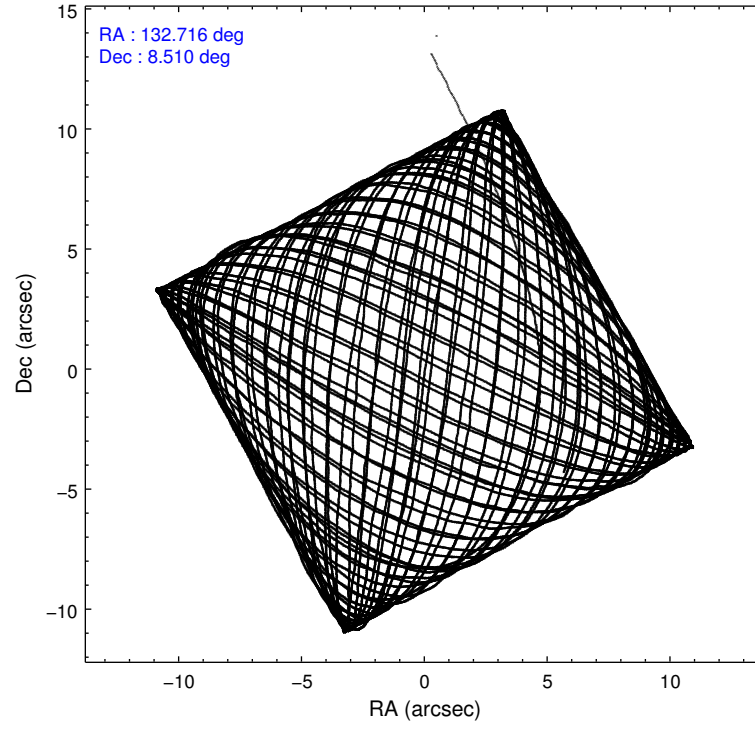
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	49447	9576	11946	25726
	10%	3%	3%	7%
grade 1 events	1078	139	531	308
	0%	0%	0%	0%
grade 2 events	72080	7076	30977	22747
	15%	2%	9%	6%
grade 3 events	7220	2919	11094	9860
	1%	1%	3%	2%
grade 4 events	7053	2952	11267	9110
	1%	1%	3%	2%
grade 5 events	29841	11793	32964	18550
	6%	4%	9%	5%
grade 6 events	109934	7100	79850	25751
	23%	2%	23%	7%
grade 7 events	199692	224677	158032	229110
	41%	84%	46%	67%

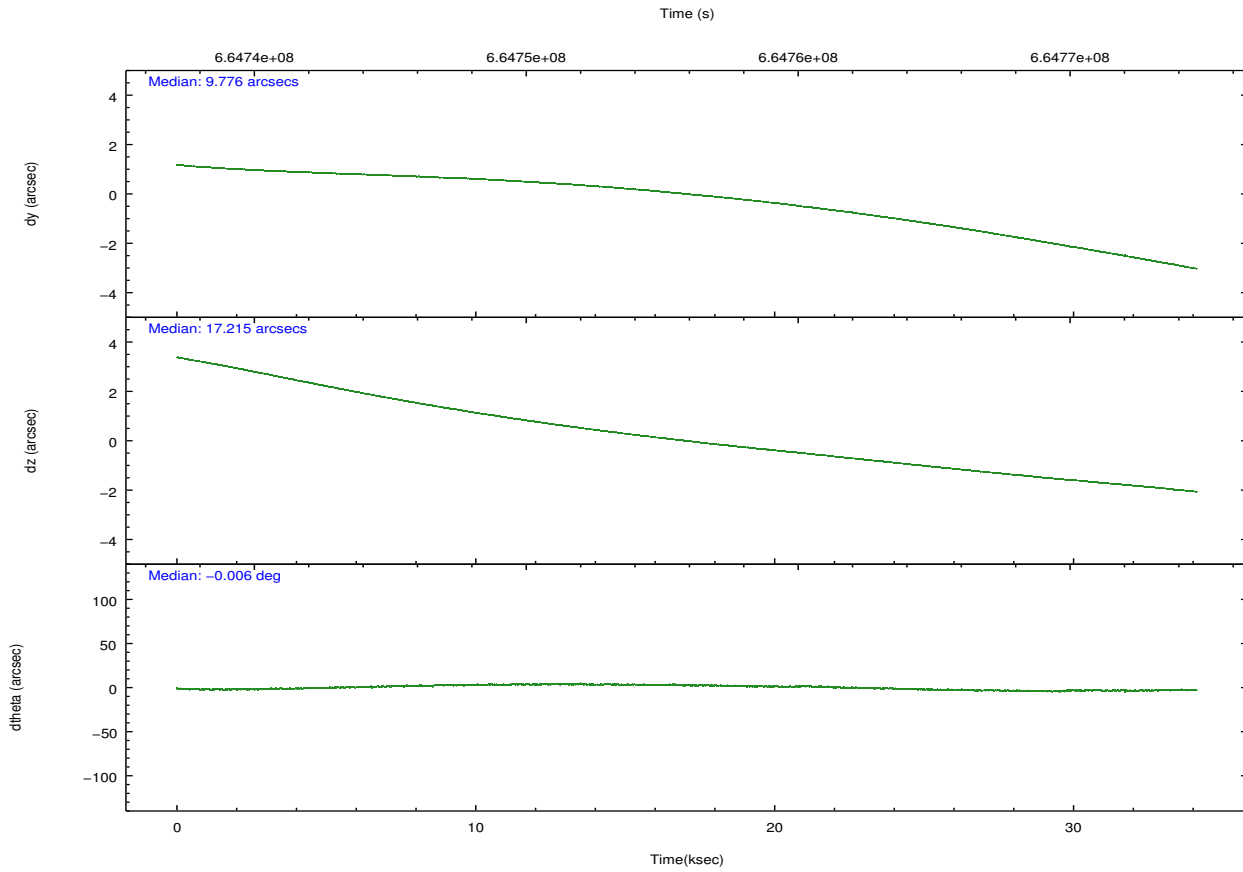
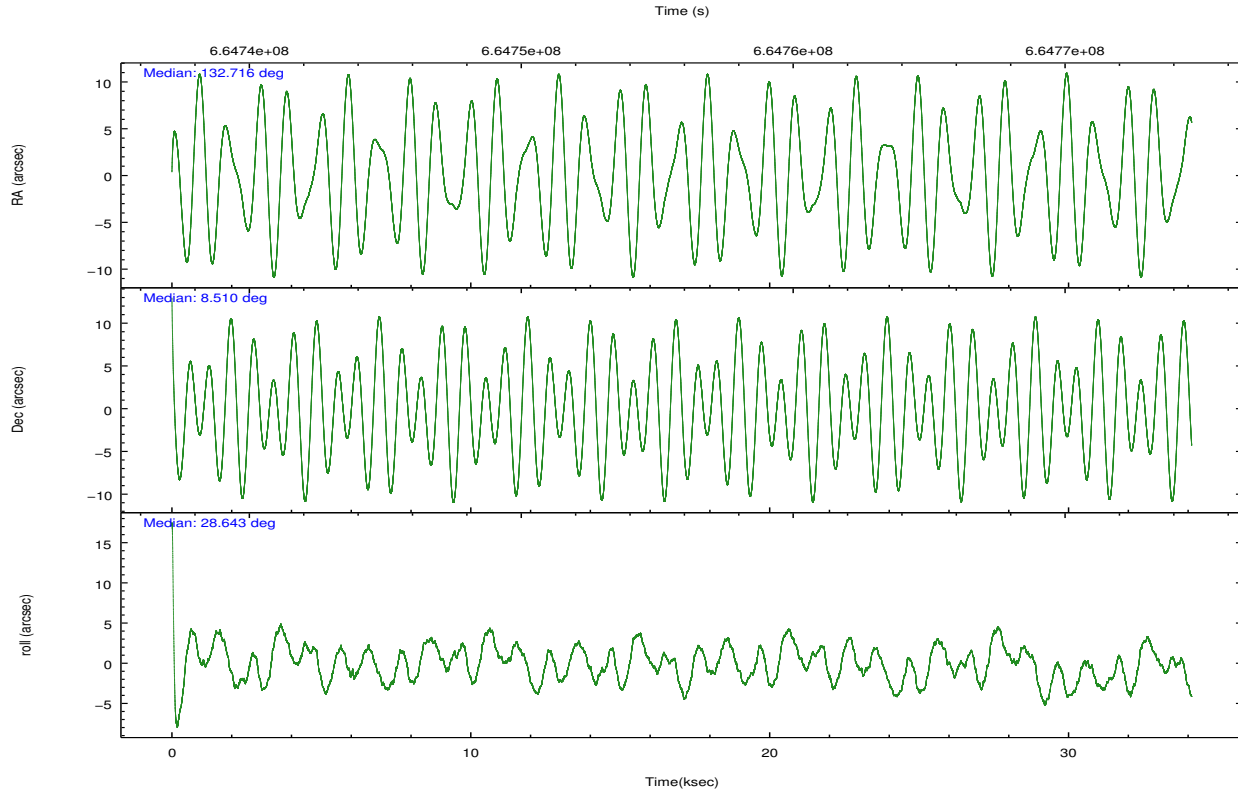
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-5678	ACIS-5678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	132.701810	132.7159334708484
[deg] Pointing Dec	8.486959	8.510590657698007
[deg] Pointing Roll	28.491449	28.64599795231084
[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)	664738961.184000	664737571.6345201
Observation start date	2019-01-24T17:41:32	2019-01-24T17:19:31
[s] Observation end time (MET)	664772961.184000	664773694.68668
Observation end date	2019-01-25T03:08:12	2019-01-25T03:21:34
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

2.3 Aspect



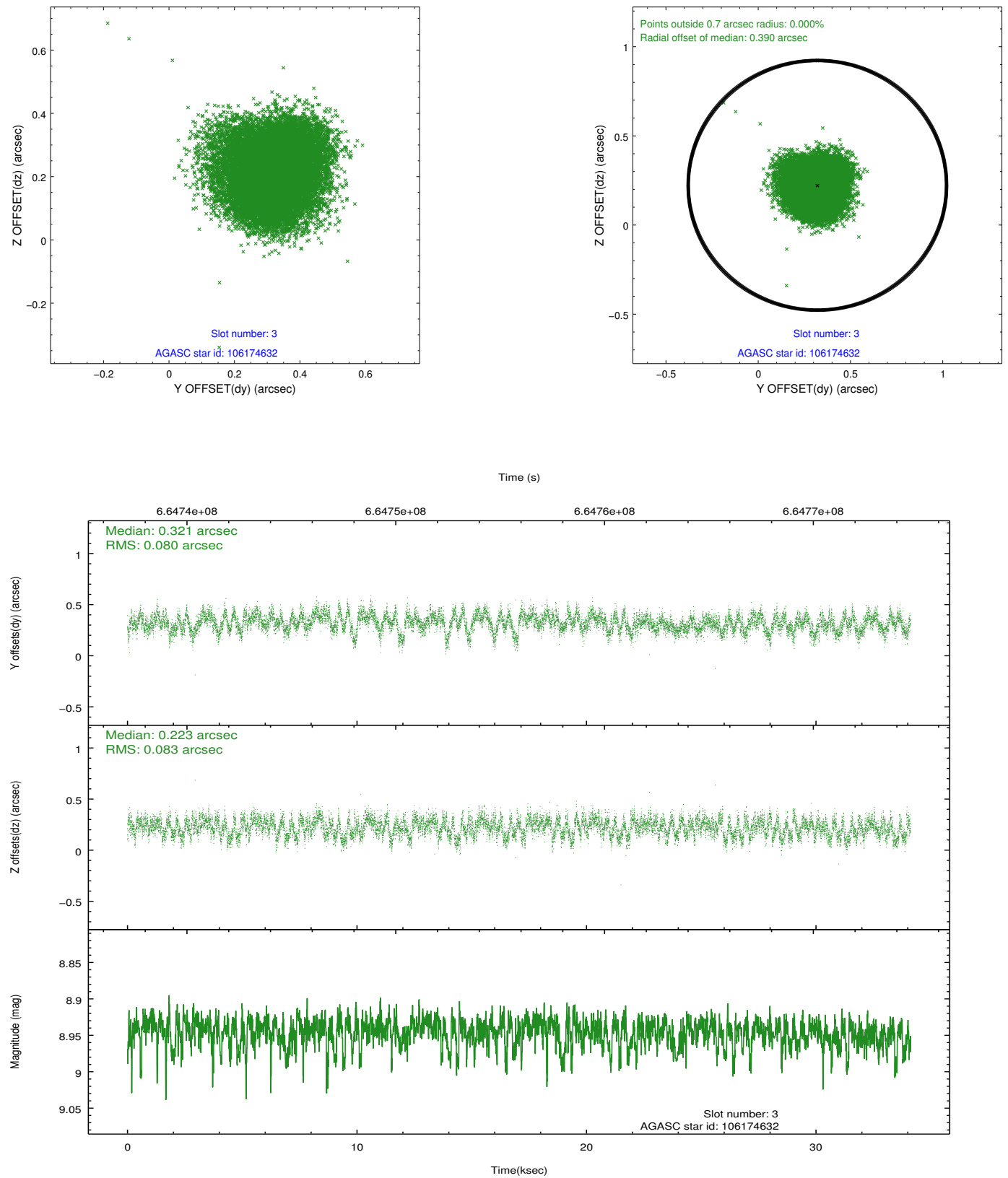


Slot Statistics

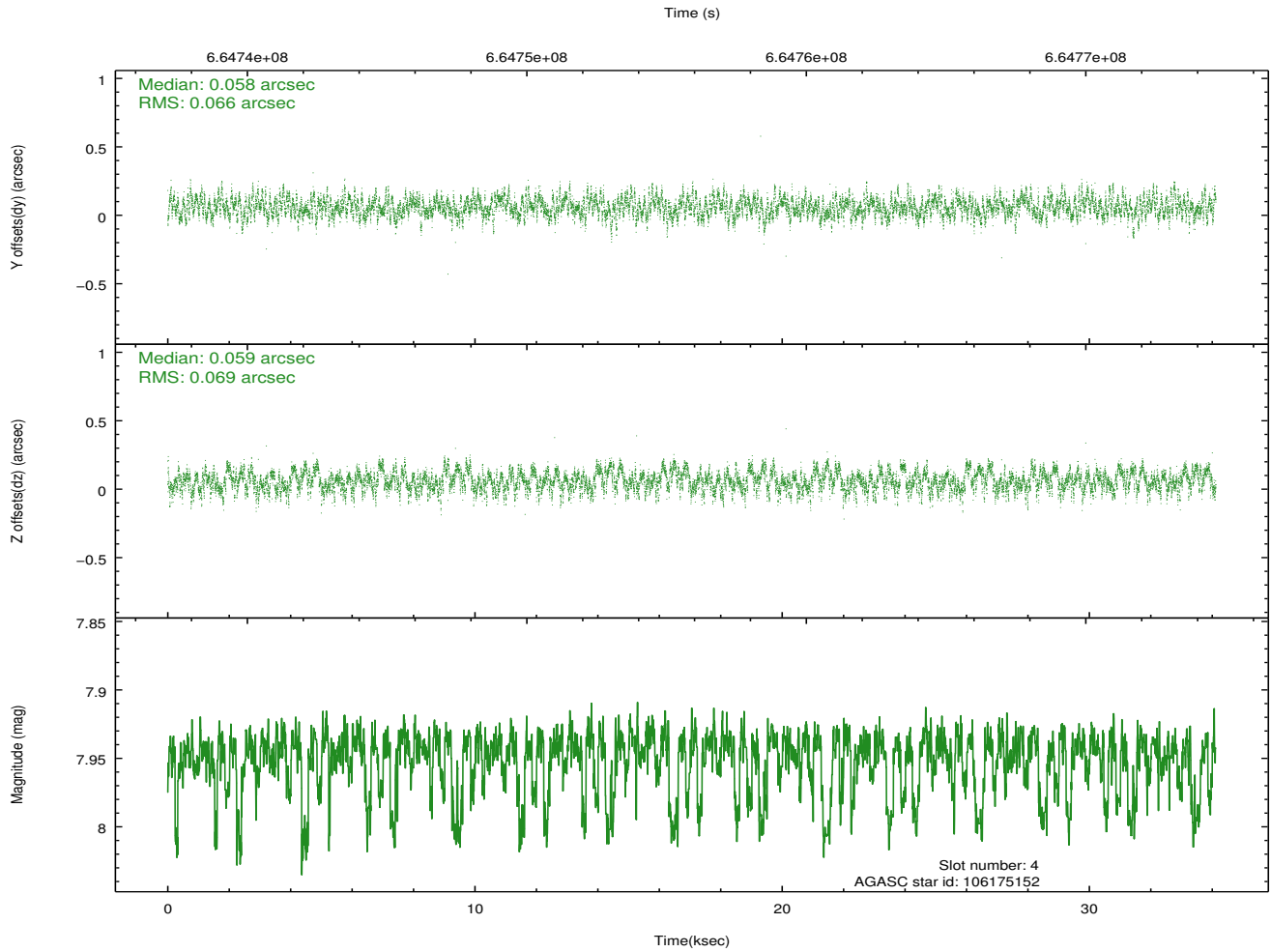
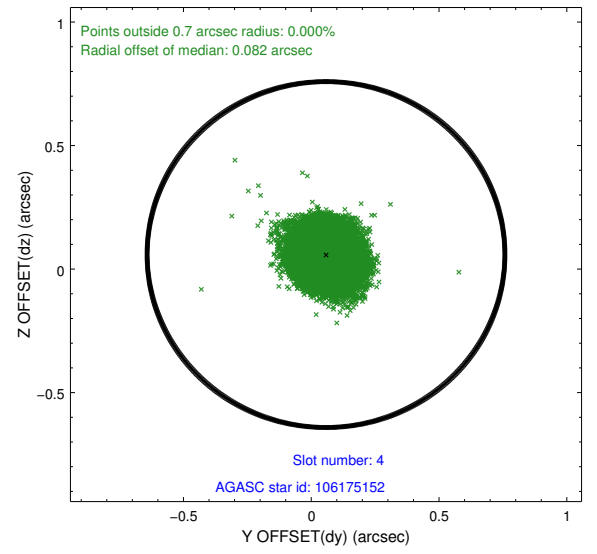
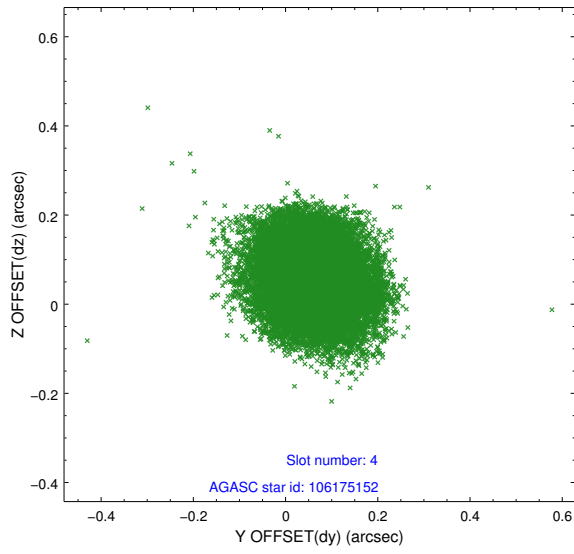
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.02	8322	1.000	-0.273	-0.128	0.034	0.047	0.000000	0.000000	-762.47	-1738
1	FID		ACIS-S-4	7.15	8322	1.000	0.658	0.171	0.020	0.070	0.000000	0.000000	2151.66	169
2	FID		ACIS-S-5	7.13	8322	1.000	-0.409	-0.030	0.036	0.078	0.000000	0.000000	-1815.42	163
3	GUIDE	used	106174632	8.95	16633	1.000	0.321	0.223	0.124	0.193	132.288525	8.017771	-2100.70	-779
4	GUIDE	used	106175152	7.95	16633	1.000	0.058	0.059	0.103	0.159	132.507770	8.274053	-972.80	-343
5	GUIDE	used	106300944	8.78	16635	1.000	0.097	0.004	0.104	0.174	133.096397	8.208025	757.24	-1552
6	GUIDE	used	106305048	6.67	16642	1.000	0.183	0.158	0.094	0.157	133.068297	8.062918	421.29	-1969
7	GUIDE	used	106314640	7.75	16642	1.000	-0.658	-0.443	0.064	0.105	133.141946	9.067350	2371.81	1090

2.4 Star Slots

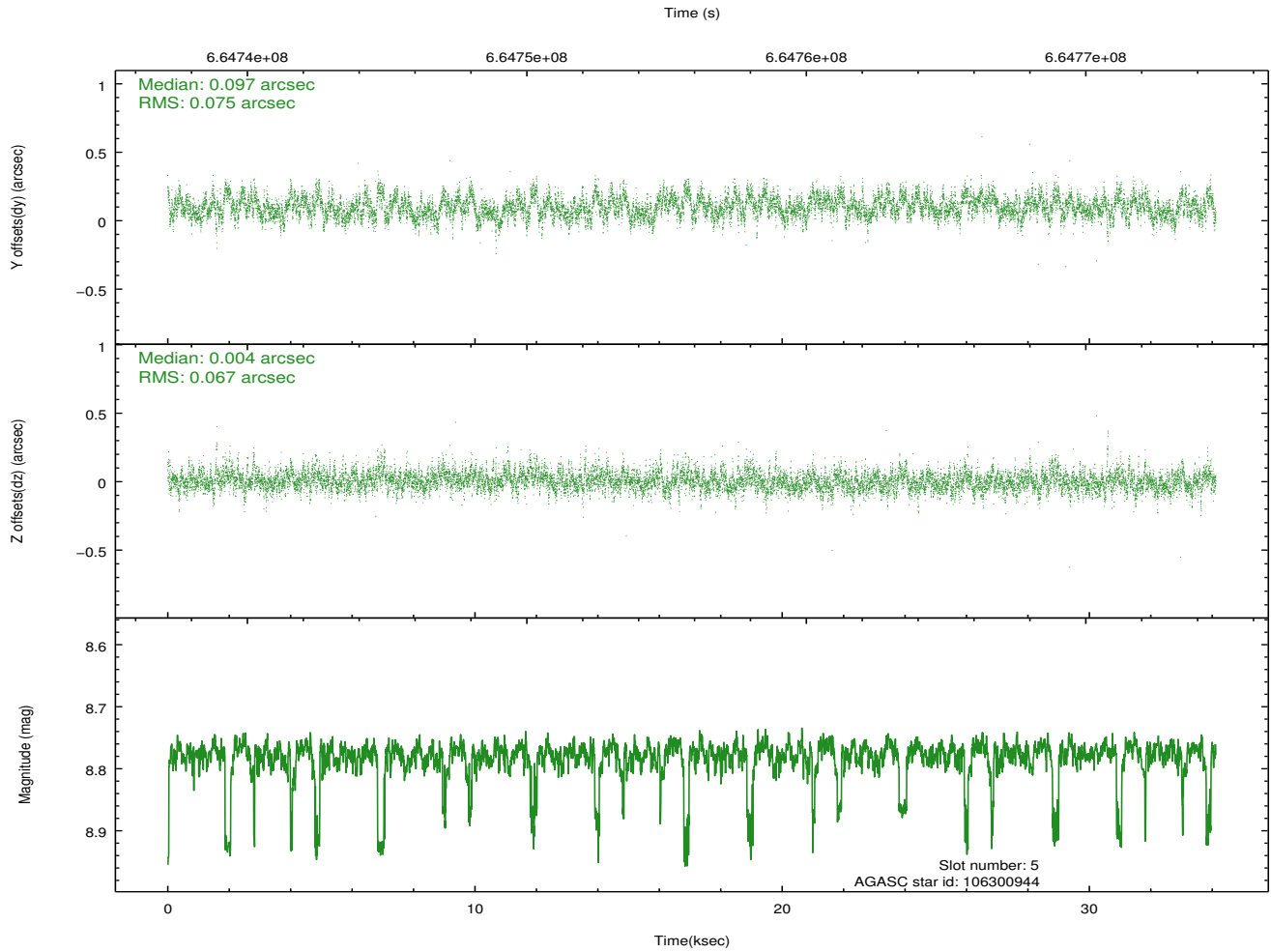
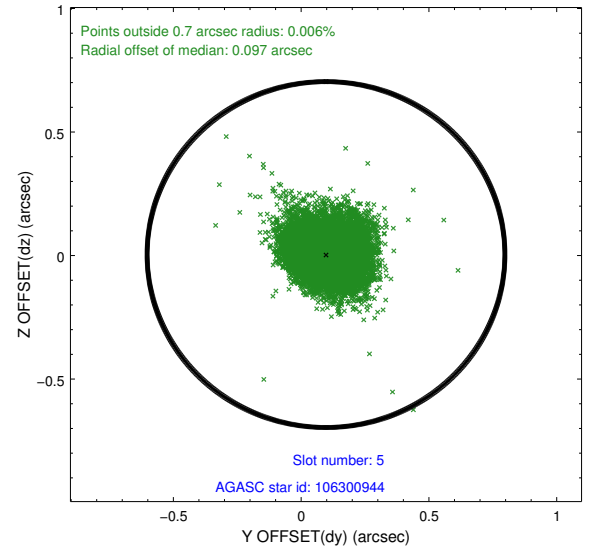
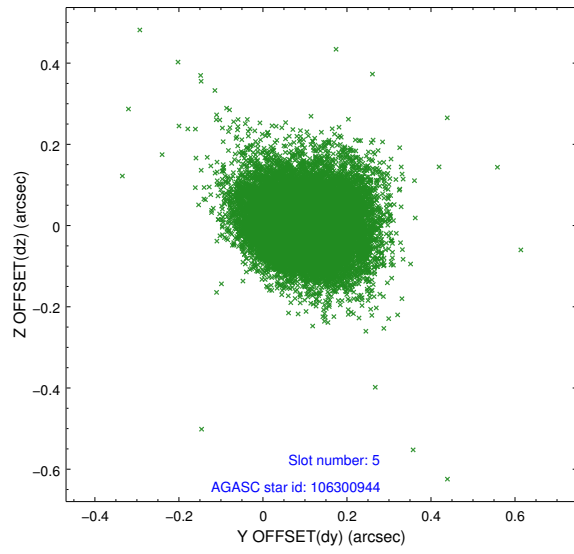
2.4.1 Slot 3



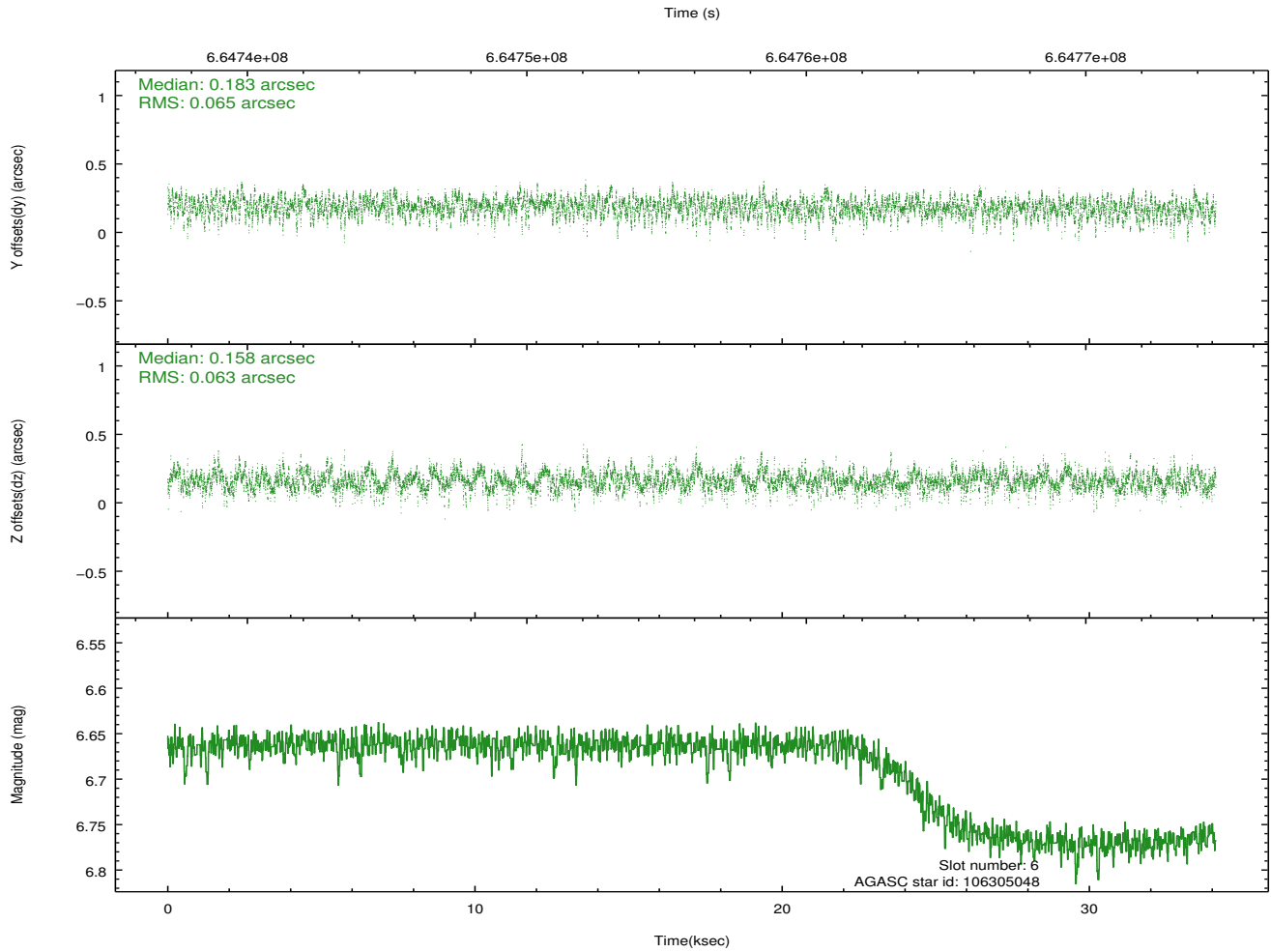
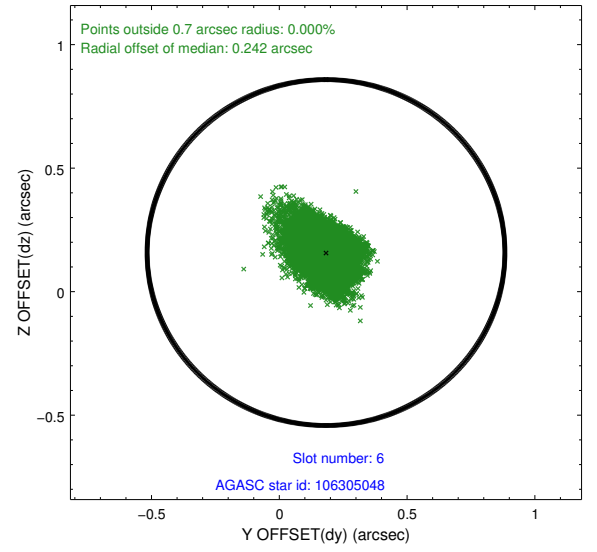
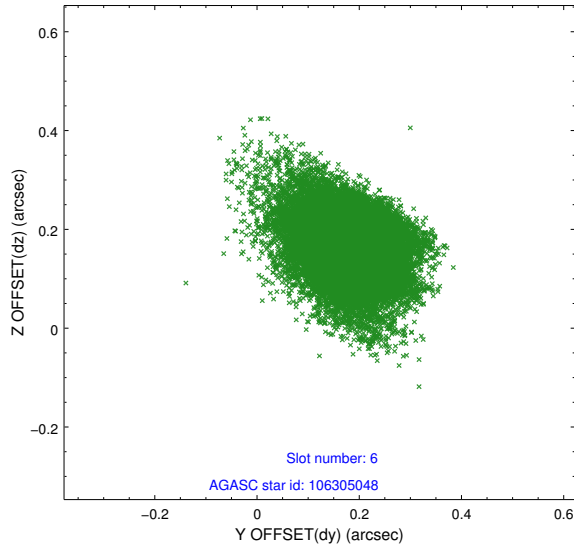
2.4.2 Slot 4



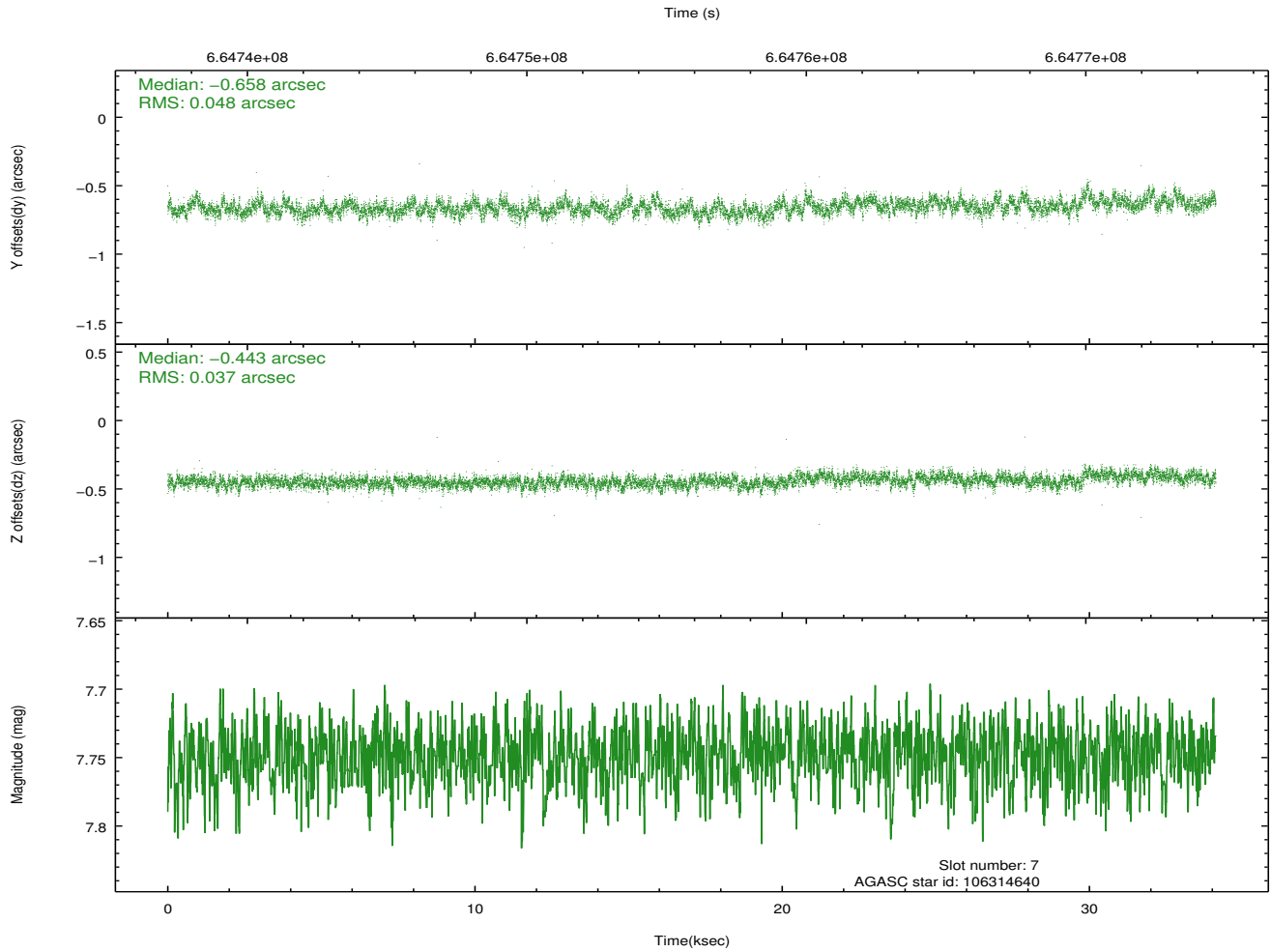
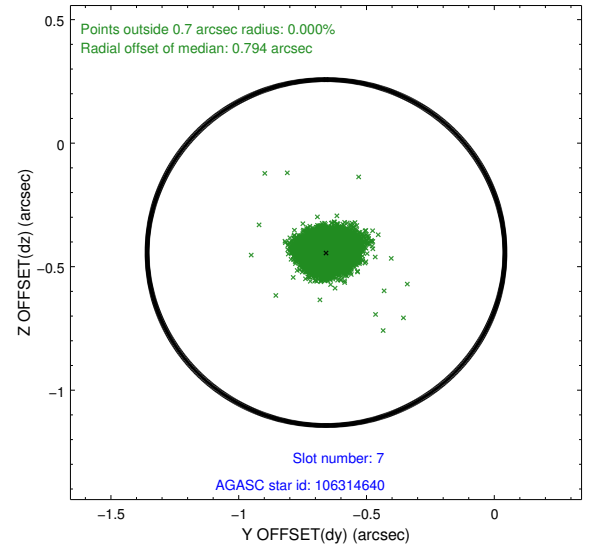
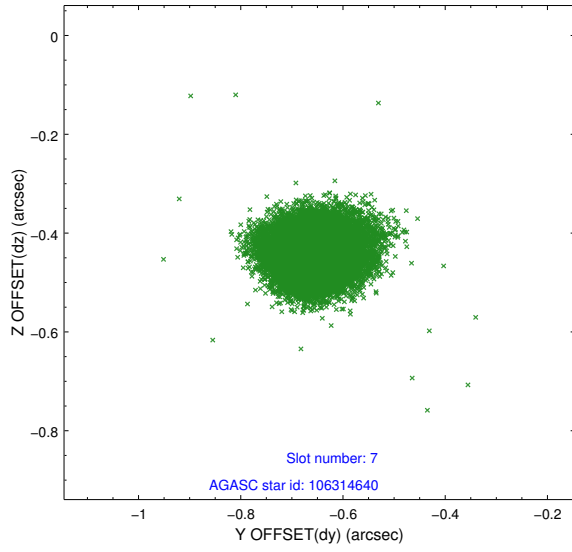
2.4.3 Slot 5



2.4.4 Slot 6

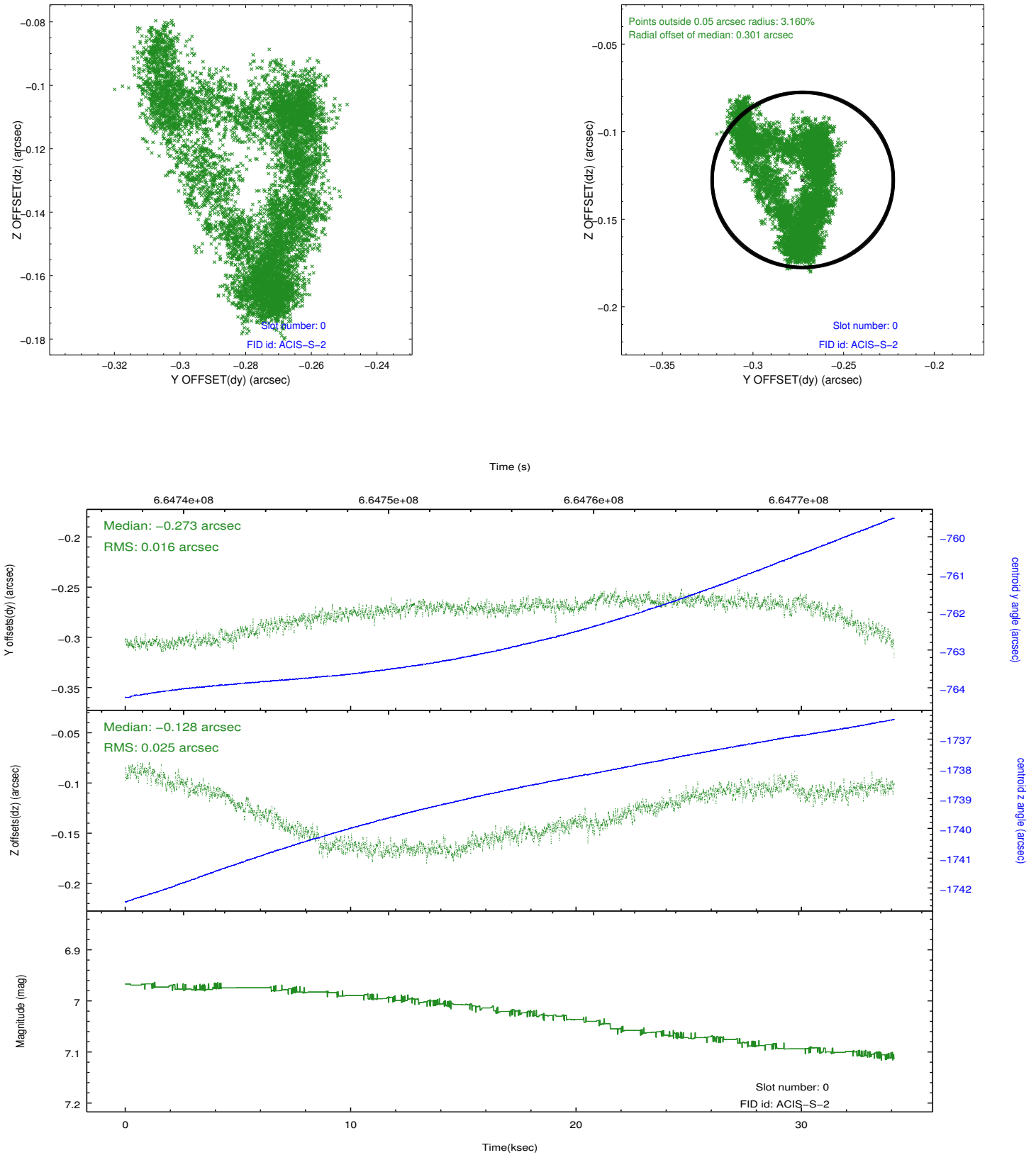


2.4.5 Slot 7

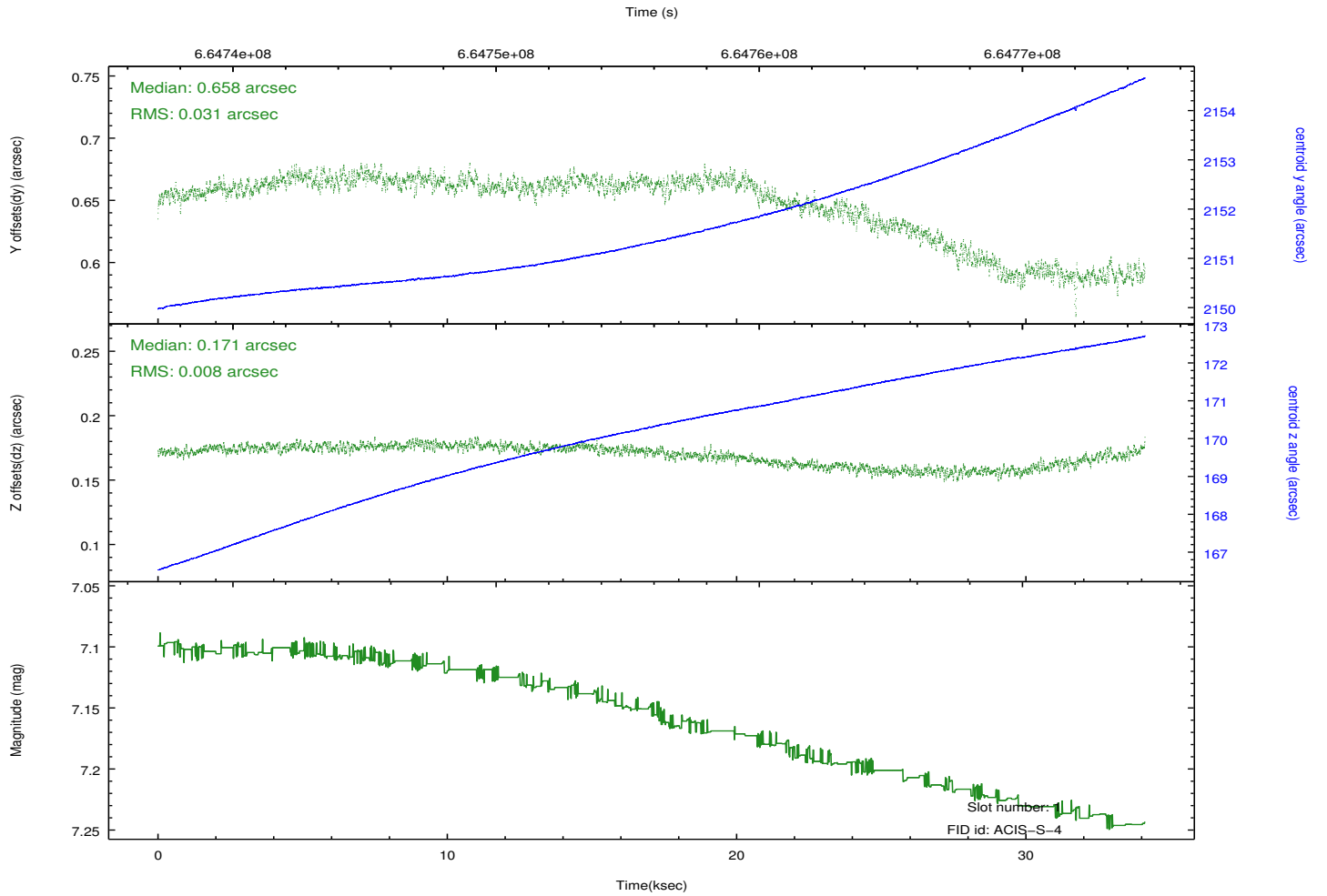
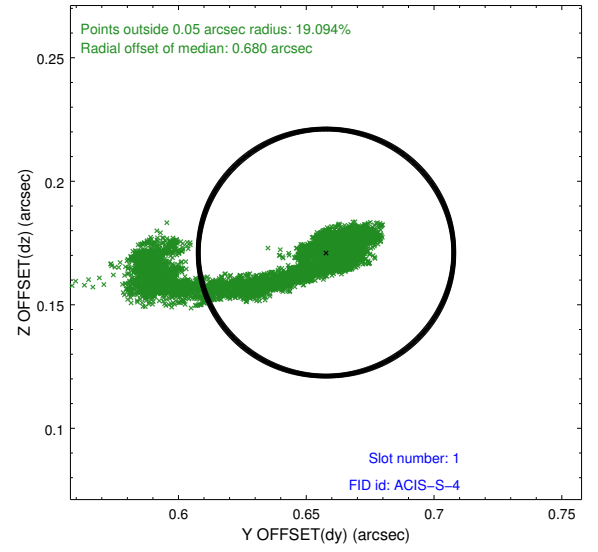
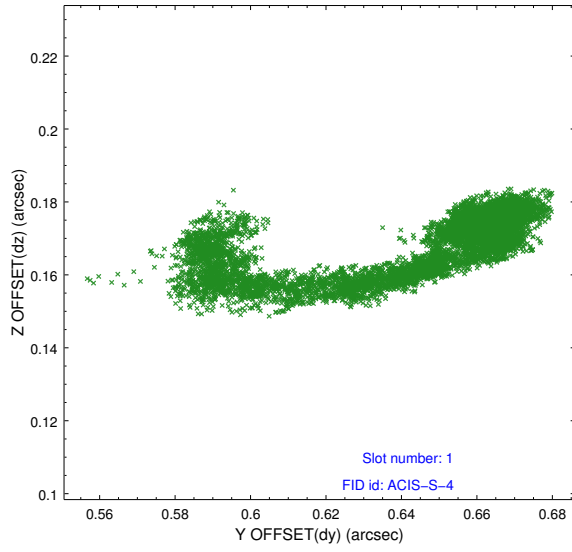


2.5 FID Slots

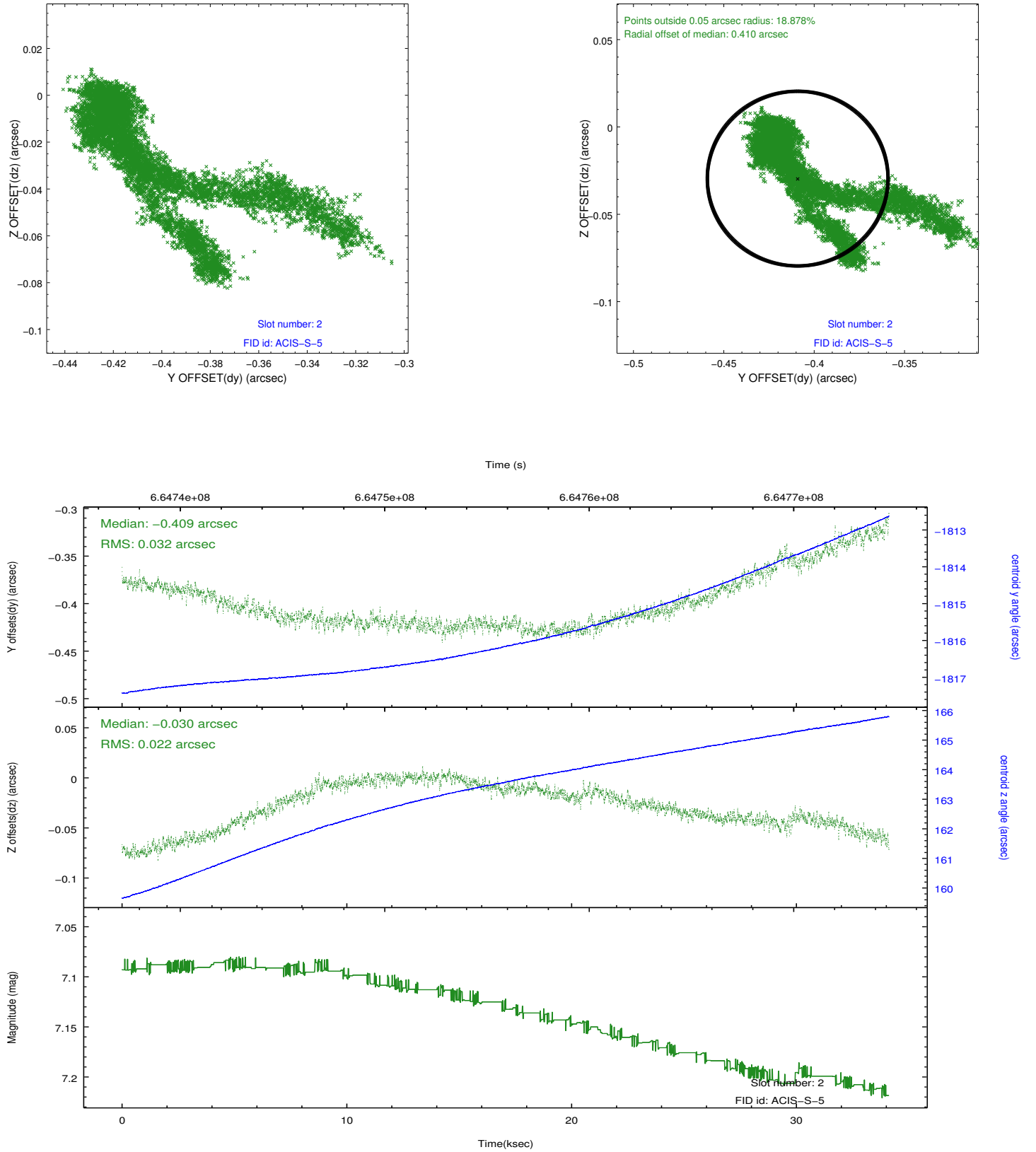
2.5.1 Slot 0



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)	2019.01.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	34.064453530431

A.2 Comments

To compensate for a few bad pixels not marked as bad that were not removed in the Level 2 processing, a custom bad pixel file with additional bad pixels at (chipx, chipy) = (232:234,322:339) in S1 was added in this processing. As a result, the user will NOT find a relatively bright square of pixels on the S1 chip for level 2 data caused by the application of the dither algorithm to the bad pixels in question, as opposed to previous processing(s).