

V&V Reference Report

L2 ASCDS Version : 10.7.1

Observation 20539 - L2 Version 2
Chandra X-Ray Center

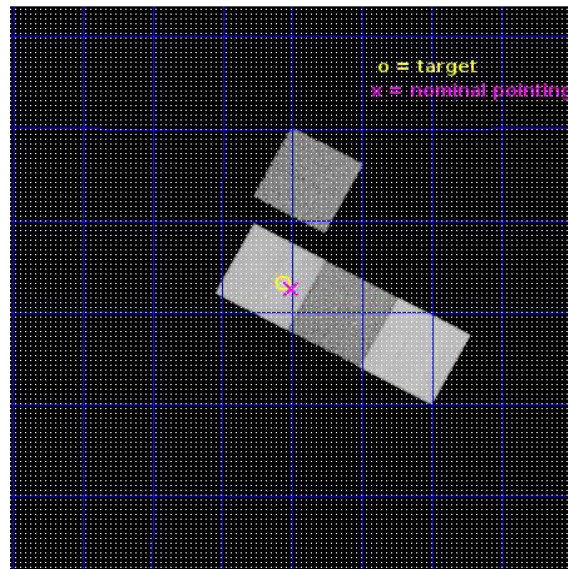
L2 Processing Date : Apr 8 2019

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1 Front

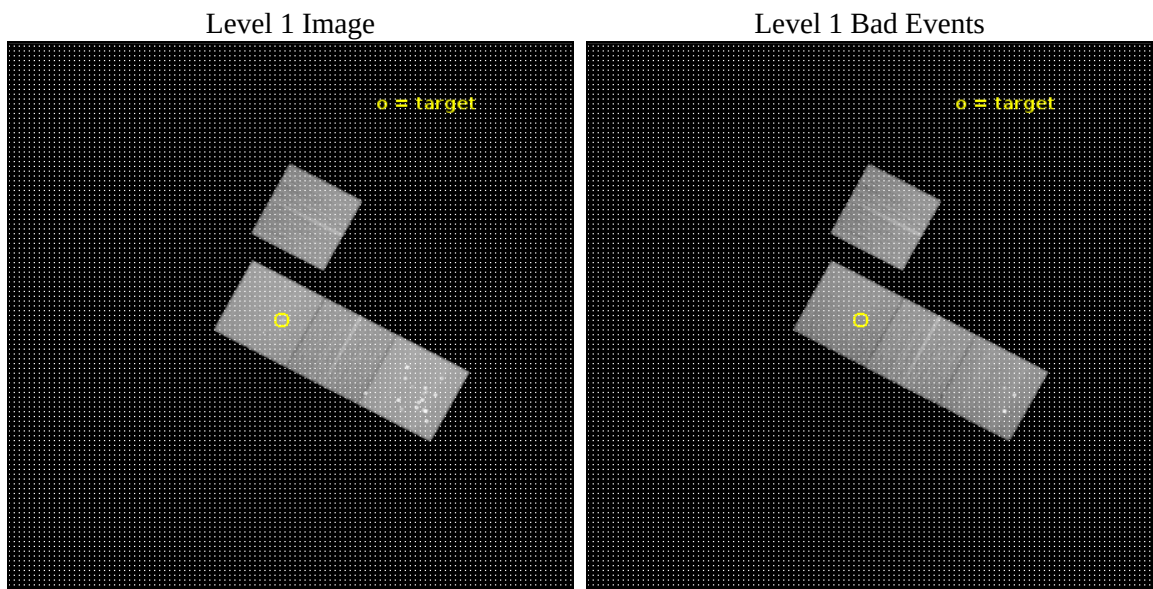
seq_num	801753	Sequence number
obs_id	20539	Observation id
title	Fuelling and self-regulation of AGN feedback at the Bondi radius of M84	Proposal title
observer	Helen Russell	Principal investigator
object	M84	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.265833	Observer's specified target RA [deg]
dec_targ	12.886944	Observer's specified target Dec [deg]
ra_nom	186.25151447535	Nominal RA [deg]
dec_nom	12.876118379999	Nominal Dec [deg]
roll_nom	208.15981703287	Nominal Roll [deg]
revision	2	Processing version of data
ontime	40064.400308251	Sum of GTIs [s]
livetime	39540.929423242	Livetime [s]
ontime3	40064.319516897	Sum of GTIs [s]
ontime5	40064.400308251	Sum of GTIs [s]
ontime6	40064.360556841	Sum of GTIs [s]
ontime7	40064.400308251	Sum of GTIs [s]
l2events	480157	Number of level 2 events



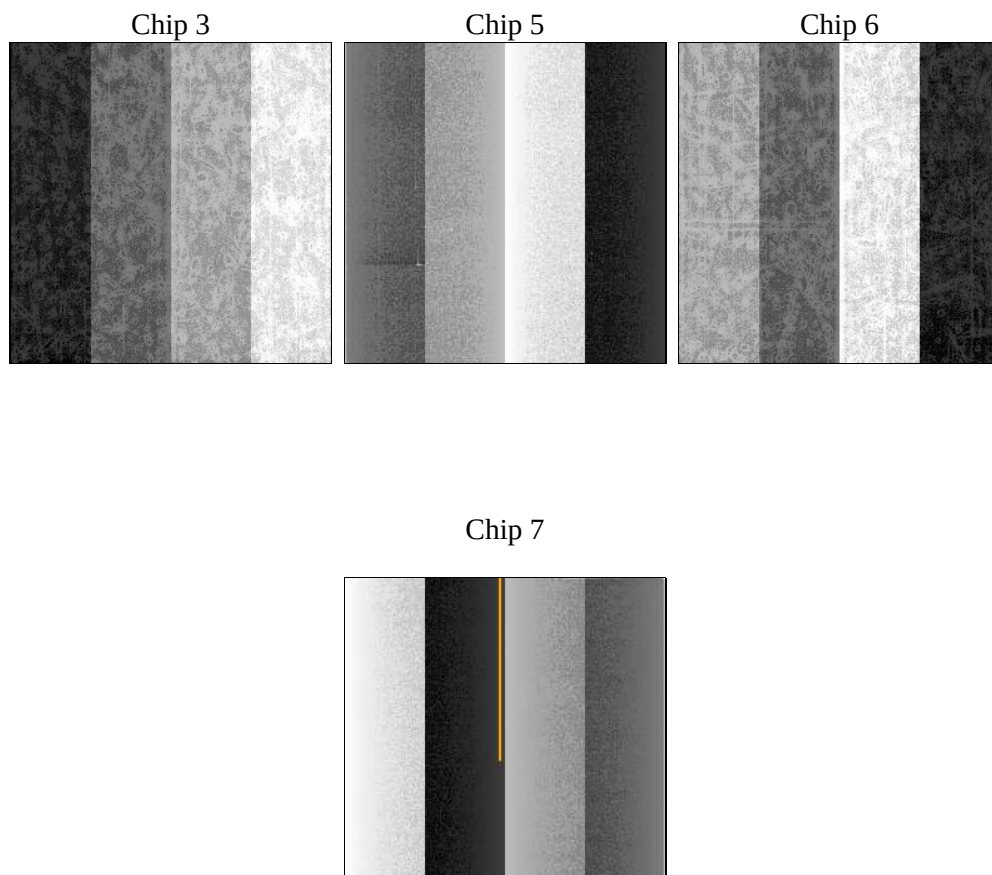
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	40064.400308251	Sum of GTIs [s]
caldsver	4.8.2	 	ontime3	40064.319516897	Sum of GTIs [s]
date	2019-04-08T19:23:41	Date and time of file creation	ontime5	40064.400308251	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	40064.360556841	Sum of GTIs [s]
			ontime7	40064.400308251	Sum of GTIs [s]
			l1events	1637049	Number of level 1 events

2.1.4 Events

	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	303664	593259	326102	414024
rejected events	268137	274402	287068	226497
rejected %	88%	46%	88%	54%

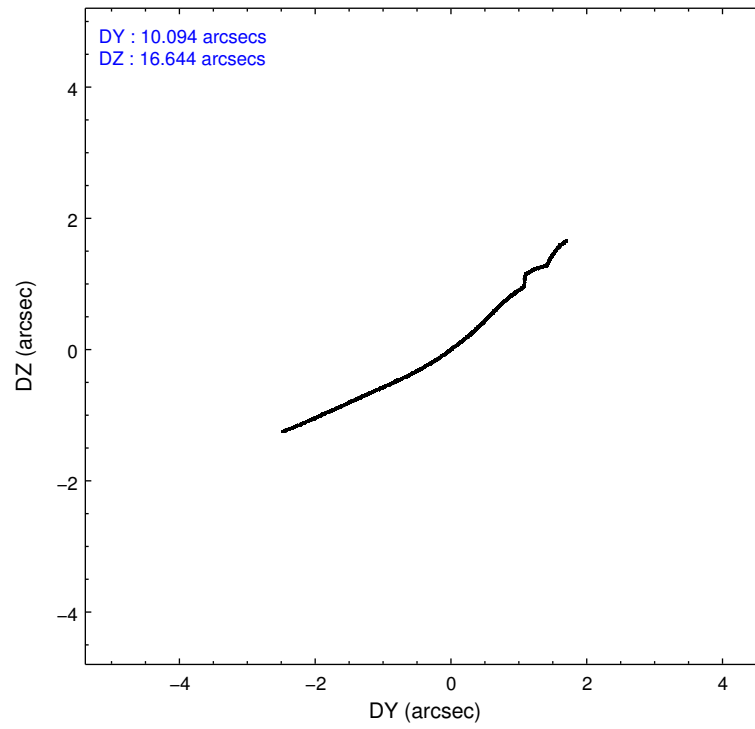
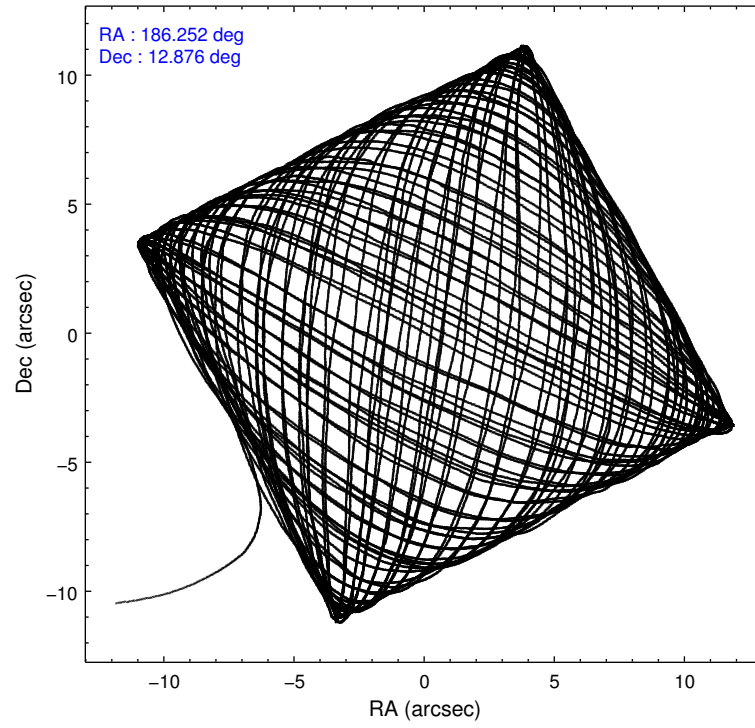
	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	13855	76157	13644	18656
	4%	12%	4%	4%
grade 1 events	173	1156	136	582
	0%	0%	0%	0%
grade 2 events	7498	90461	9488	40307
	2%	15%	2%	9%
grade 3 events	3397	9219	3442	15231
	1%	1%	1%	3%
grade 4 events	3494	9106	3364	15178
	1%	1%	1%	3%
grade 5 events	13869	35377	13848	39645
	4%	5%	4%	9%
grade 6 events	7290	133969	9105	98180
	2%	22%	2%	23%
grade 7 events	254088	237814	273075	186245
	83%	40%	83%	44%

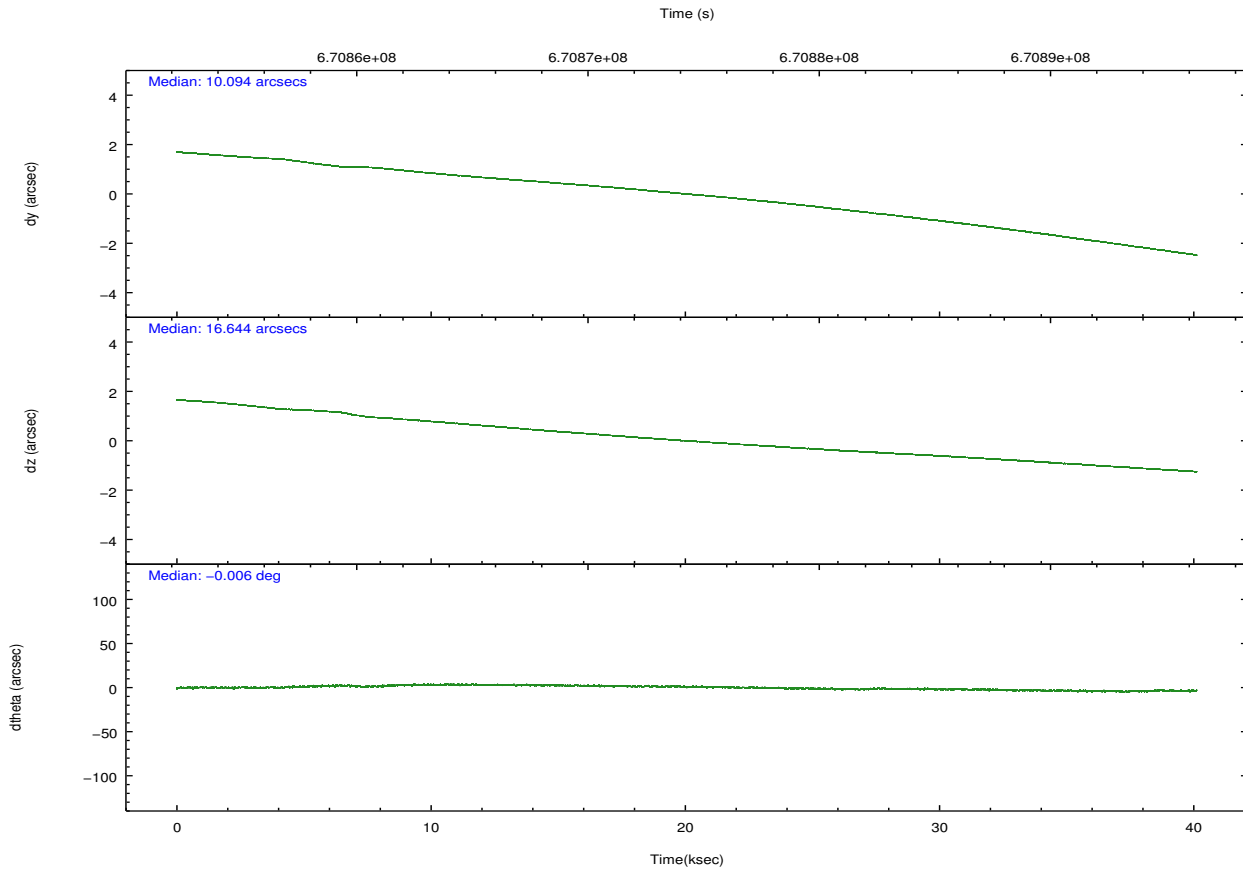
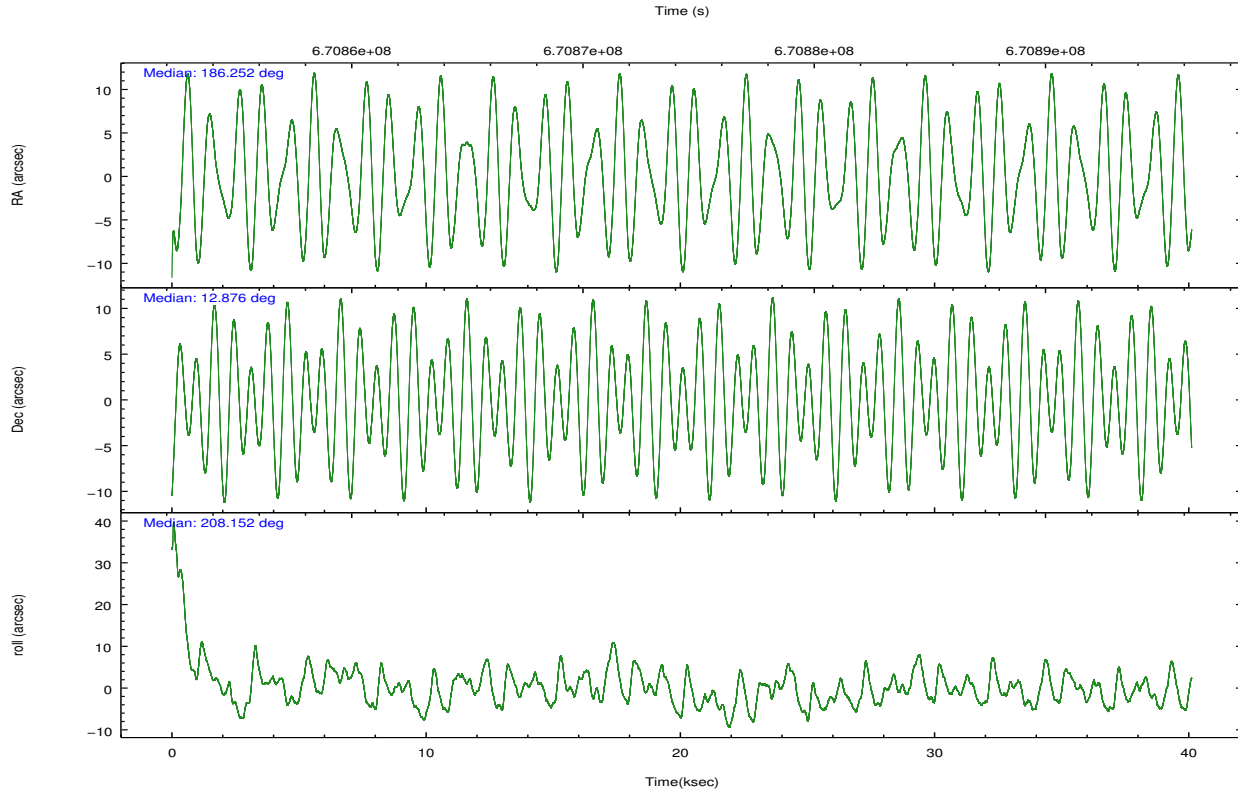
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-3567	ACIS-3567
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	186.266058	186.2515144753545
[deg] Pointing Dec	12.899613	12.87611837999857
[deg] Pointing Roll	207.999953	208.1598170328709
[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)	670854331.184000	670853001.8250901
Observation start date	2019-04-05T12:24:22	2019-04-05T12:03:21
[s] Observation end time (MET)	670894331.184000	670895416.32762
Observation end date	2019-04-05T23:31:02	2019-04-05T23:50:16
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	O1	N
CCD I3 on	Y	Y
CCD S0 on	N	N
CCD S1 on	Y	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	O2	N
CCD S5 on	N	N
Number of optional ACIS chips dropped	2	2
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



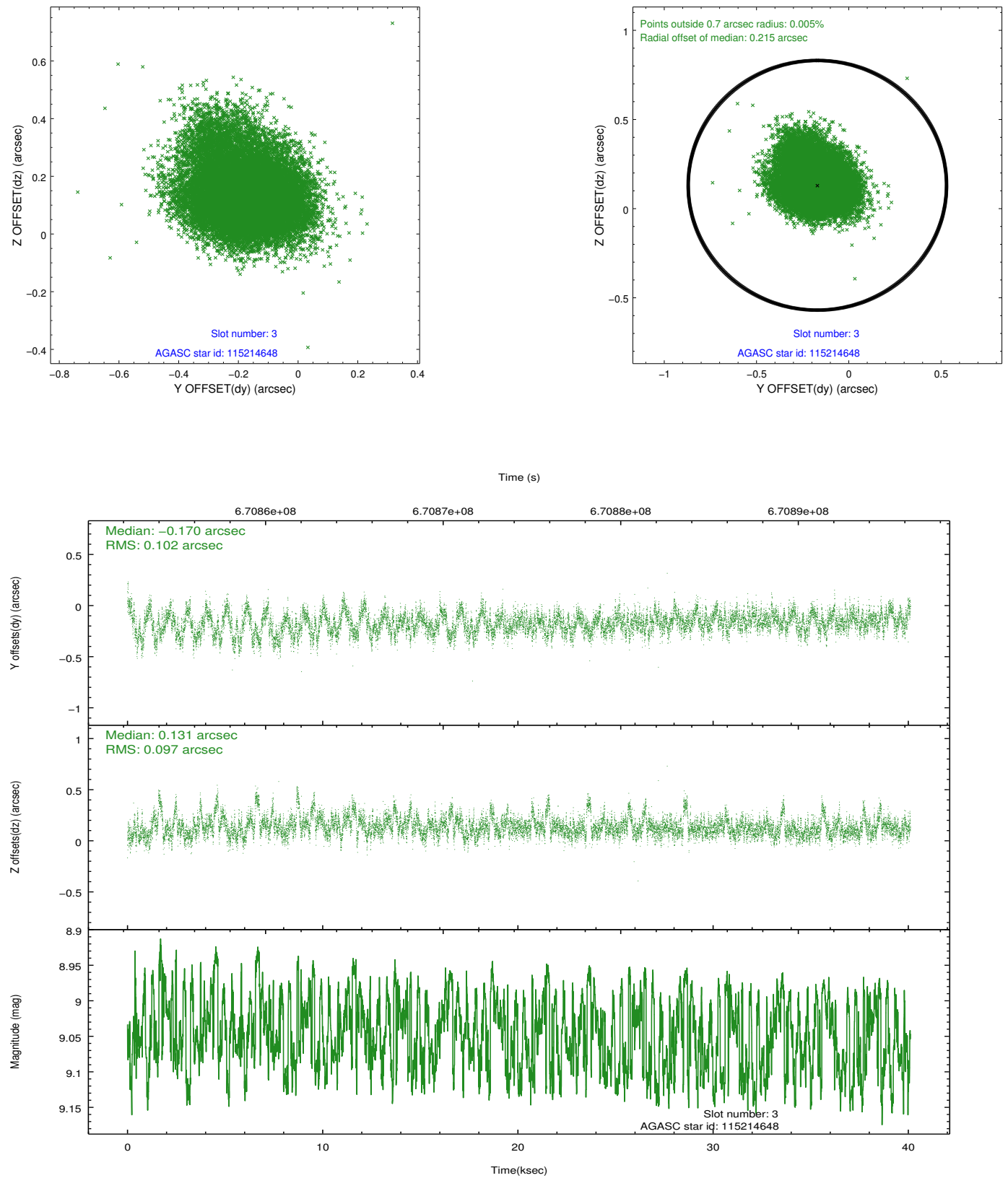


Slot Statistics

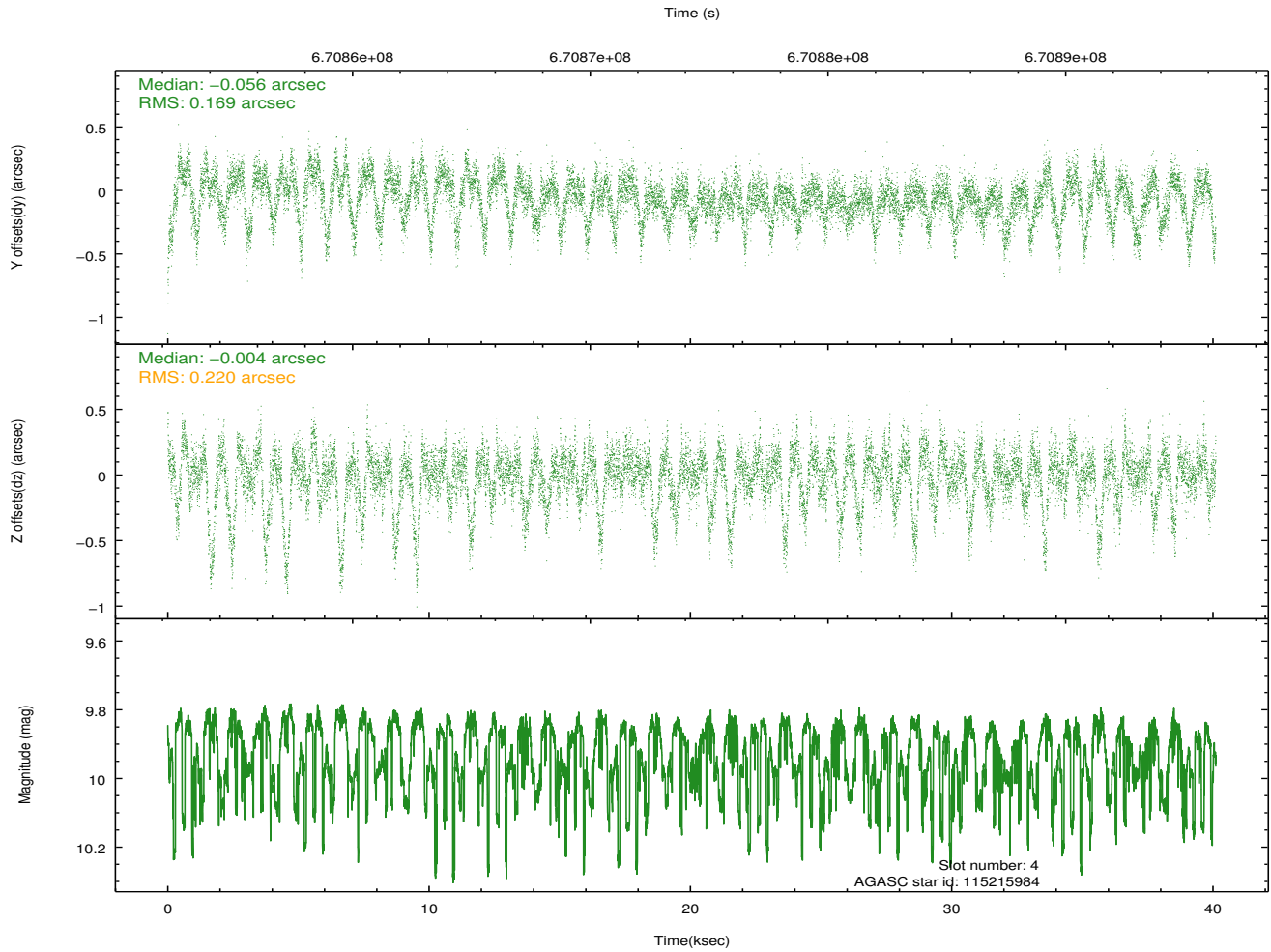
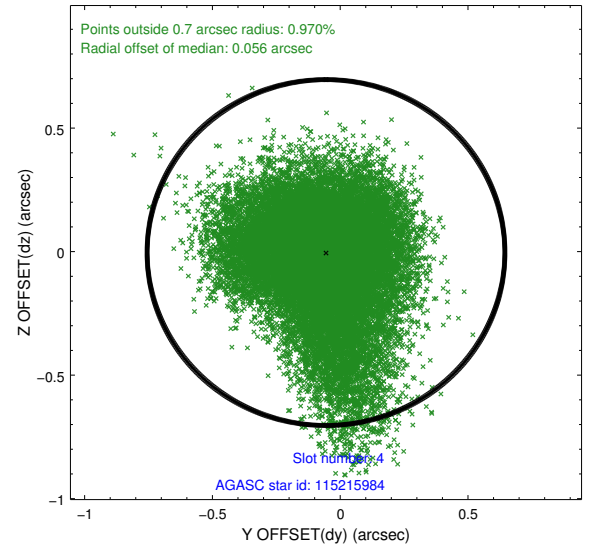
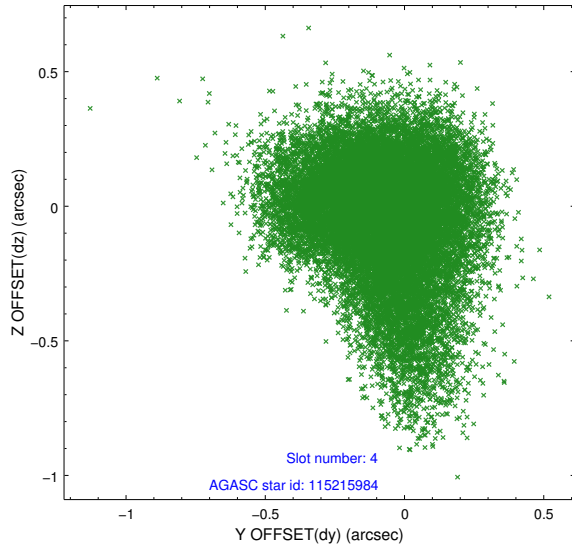
pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		ACIS-S-2	7.01	9784	1.000	-0.267	-0.142	0.031	0.040	0.000000	0.000000	-763.00	-1738
1	FID		ACIS-S-4	7.15	9784	1.000	0.671	0.170	0.020	0.078	0.000000	0.000000	2151.14	170
2	FID		ACIS-S-5	7.11	9783	1.000	-0.430	-0.021	0.037	0.074	0.000000	0.000000	-1816.03	163
3	GUIDE	used	115214648	9.05	19542	1.000	-0.170	0.131	0.146	0.250	185.771147	12.685188	1897.43	-135
4	GUIDE	used	115215984	9.93	19484	1.000	-0.056	-0.004	0.283	0.501	186.134733	12.875031	449.20	-137
5	GUIDE	used	115216184	9.59	19537	1.000	-0.374	-0.527	0.225	0.365	185.973150	12.580247	1448.94	534
6	GUIDE	used	115347480	9.47	19540	1.000	0.119	0.206	0.283	0.460	186.668576	13.310410	-1939.08	-644
7	GUIDE	used	115349448	9.67	19456	1.000	0.493	0.283	0.206	0.336	186.471080	13.770115	-2102.79	-2431

2.4 Star Slots

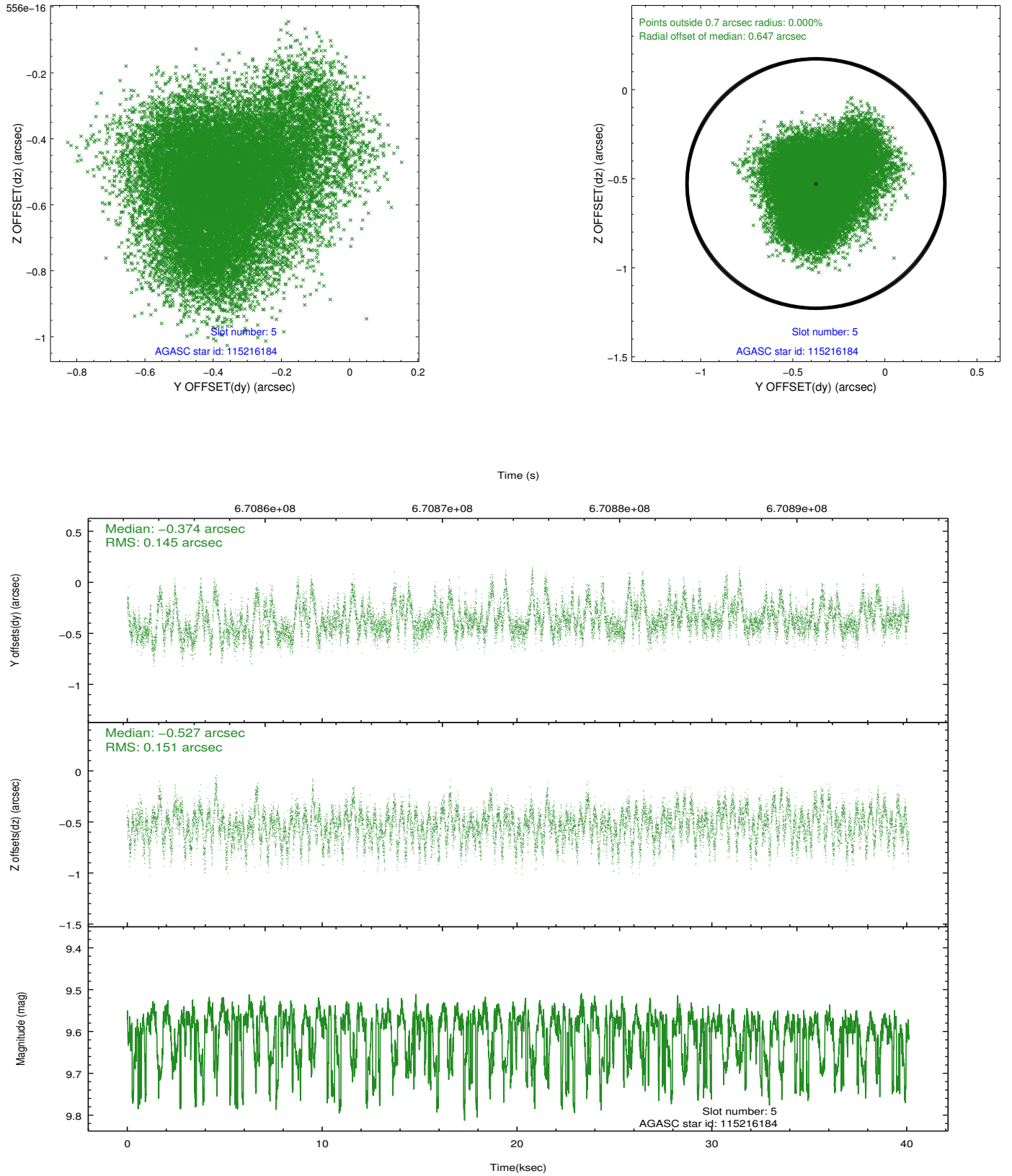
2.4.1 Slot 3



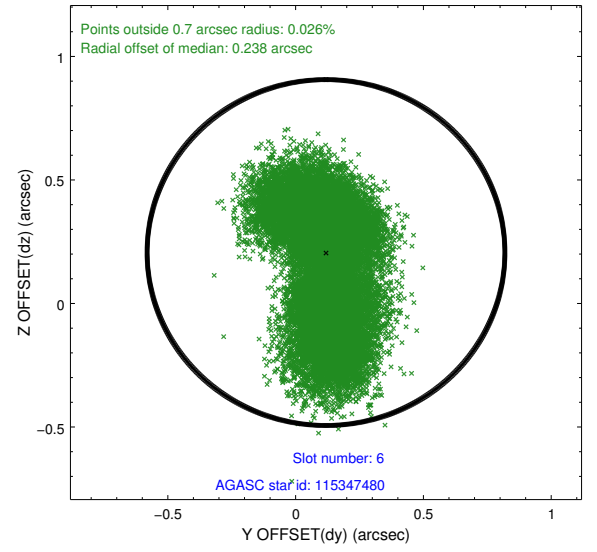
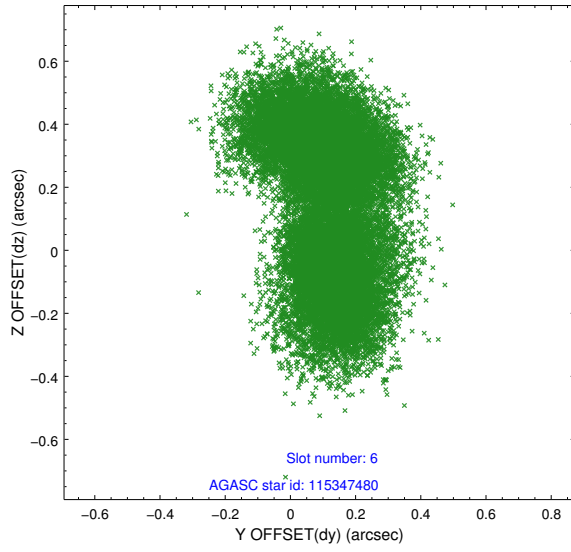
2.4.2 Slot 4



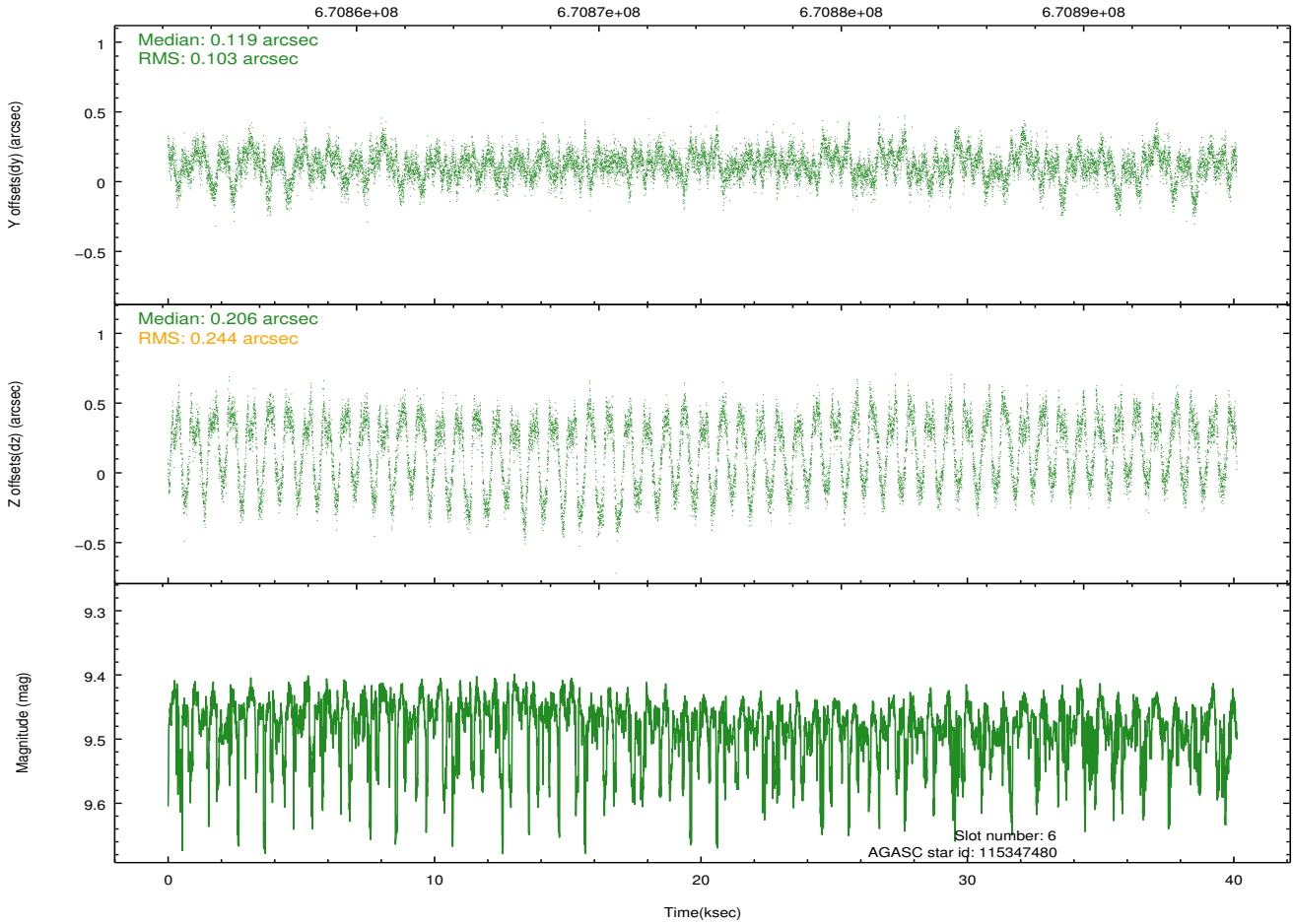
2.4.3 Slot 5



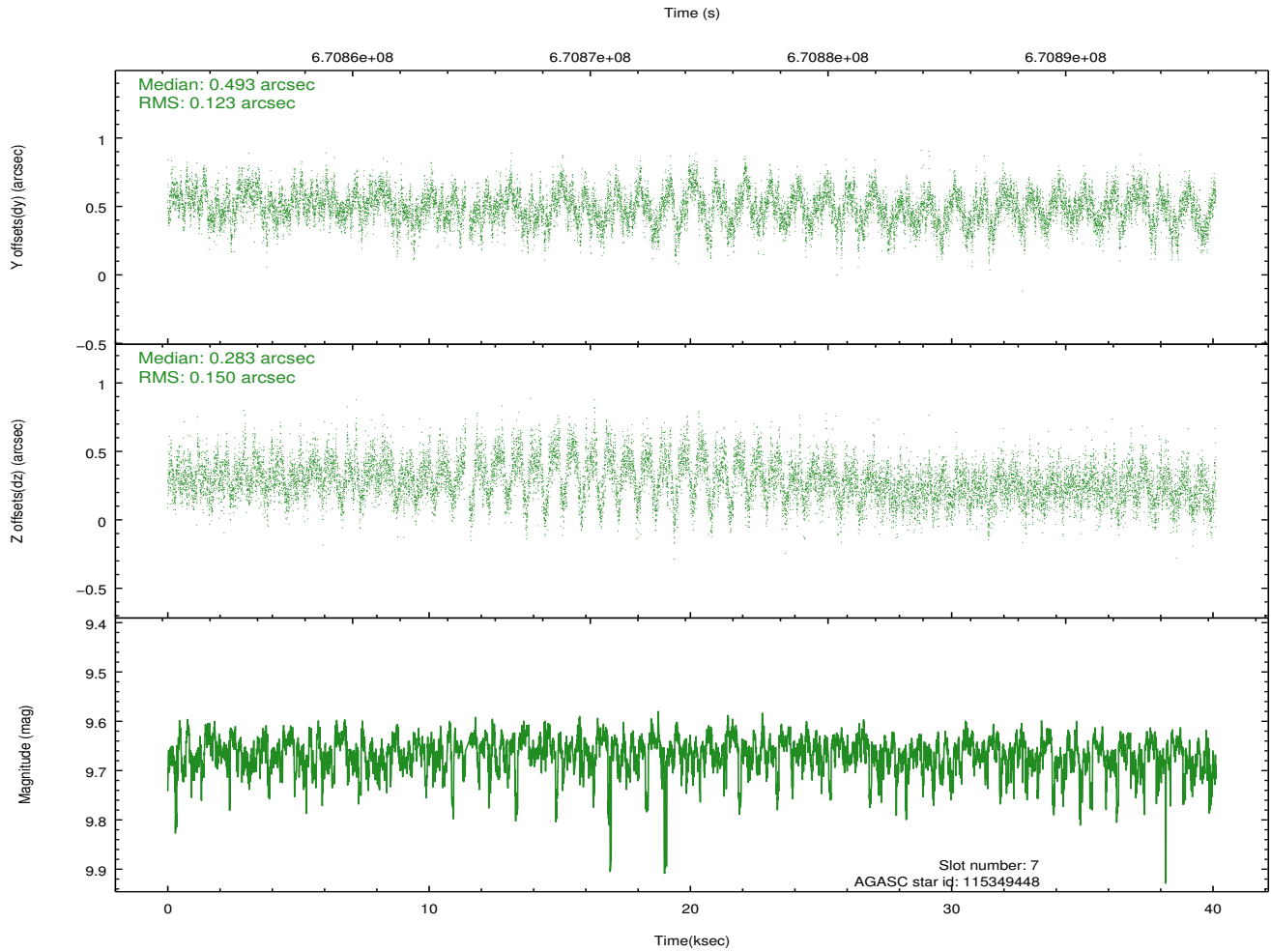
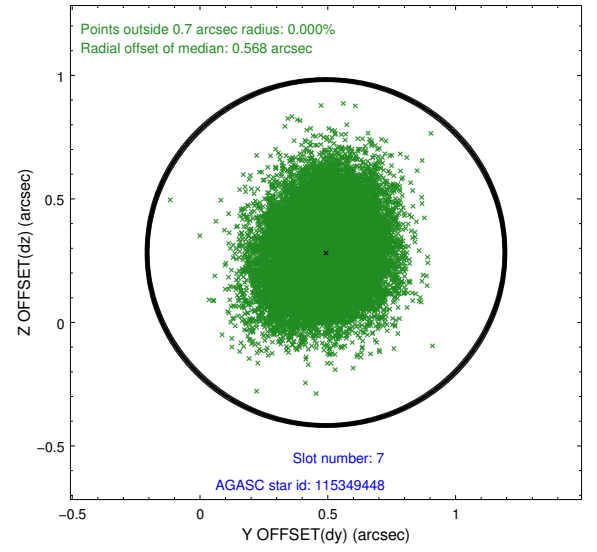
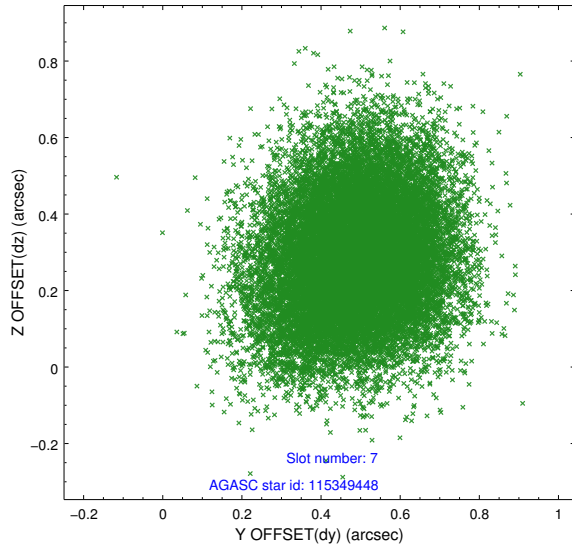
2.4.4 Slot 6



Time (s)

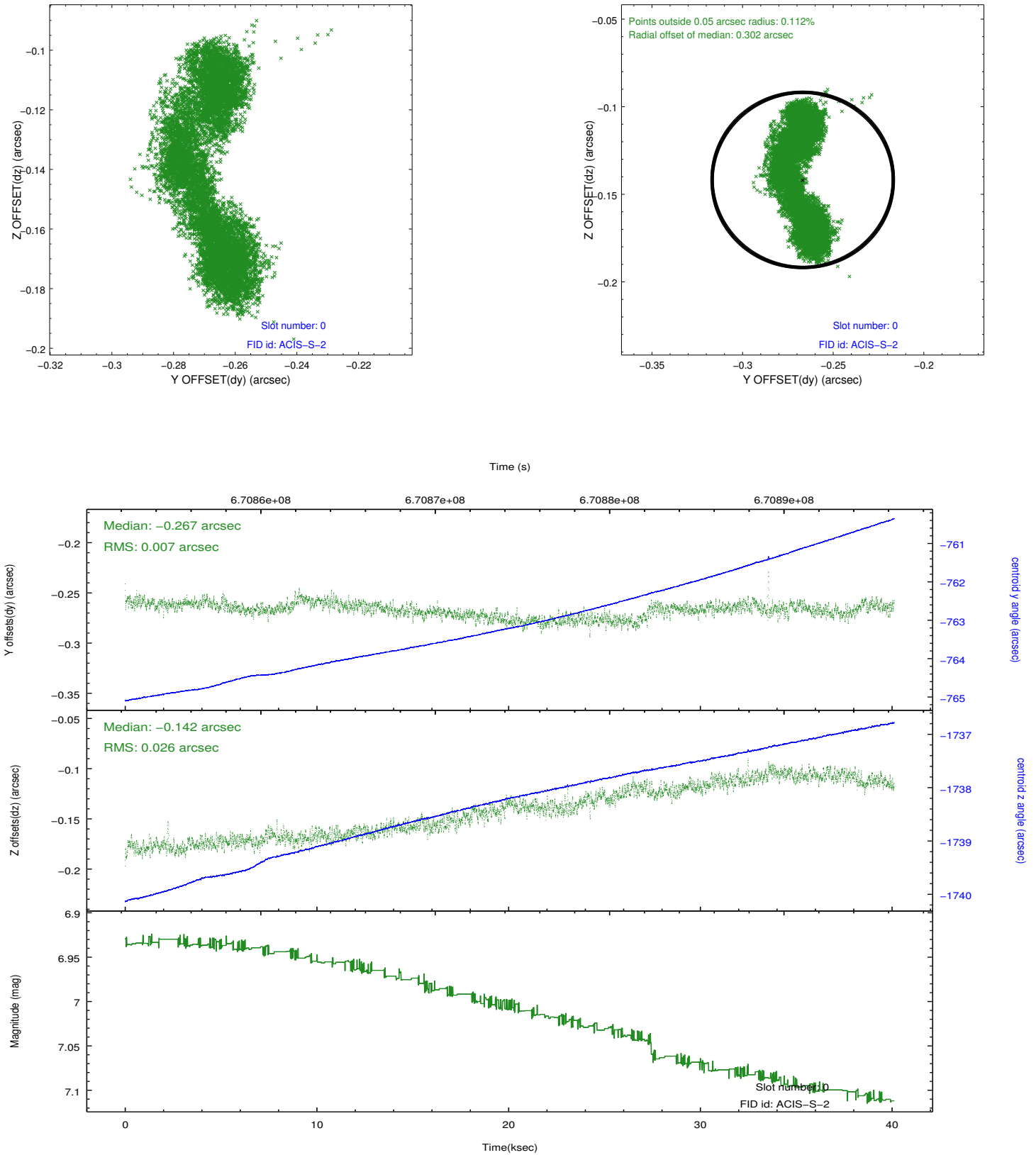


2.4.5 Slot 7

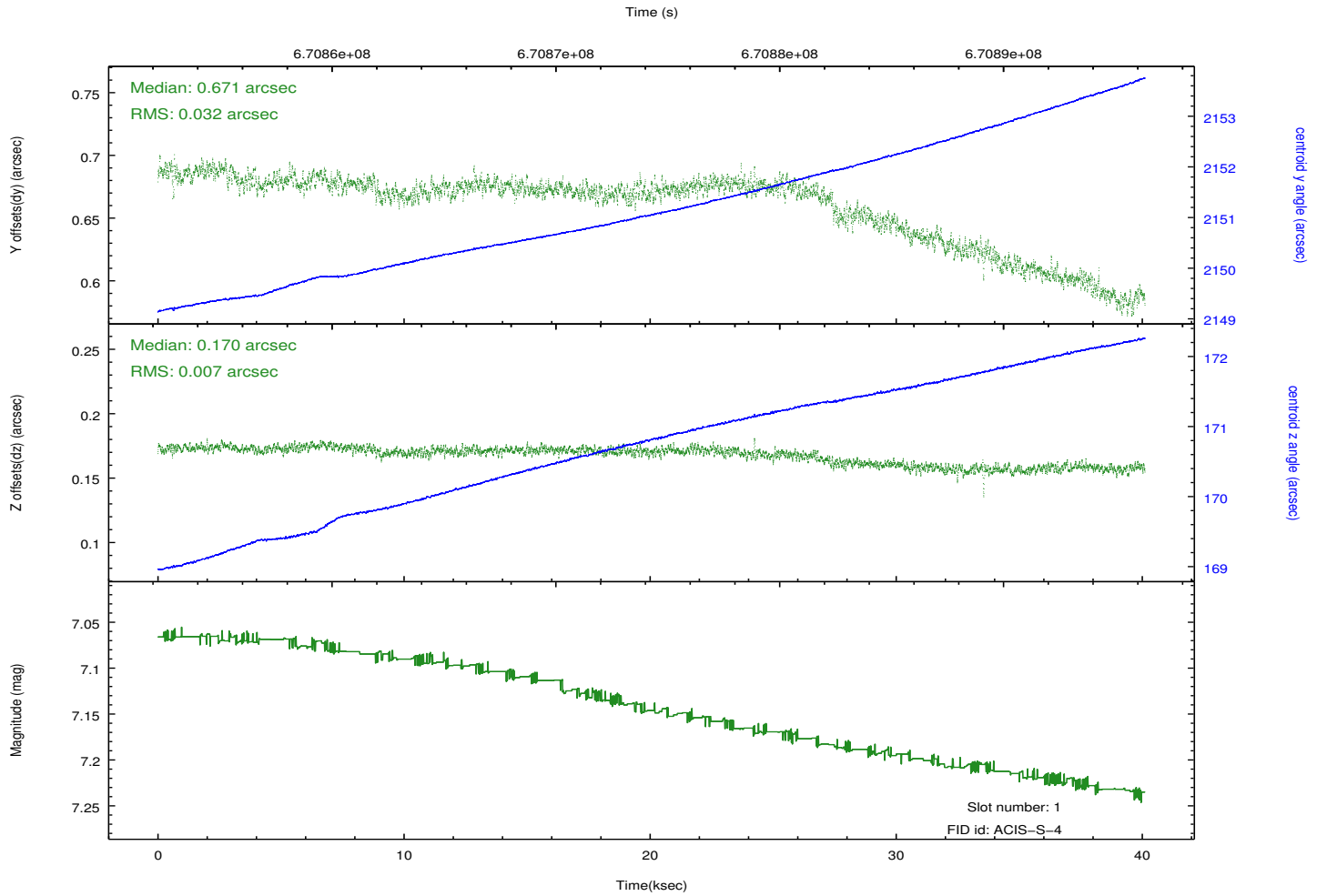
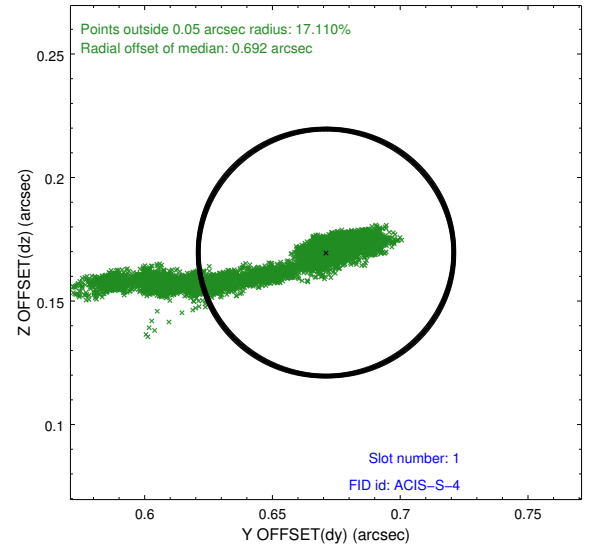
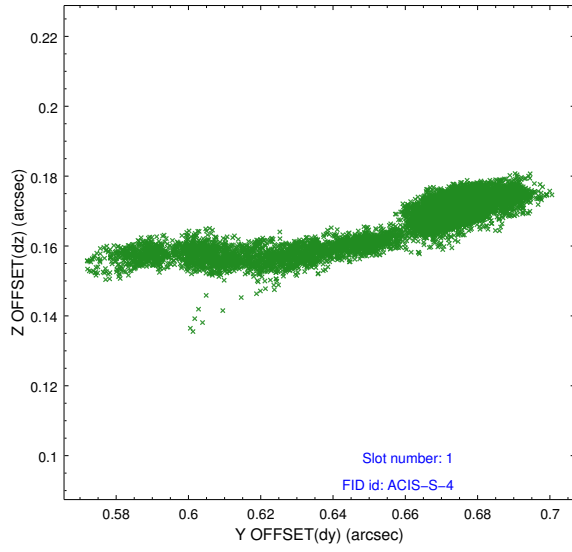


2.5 FID Slots

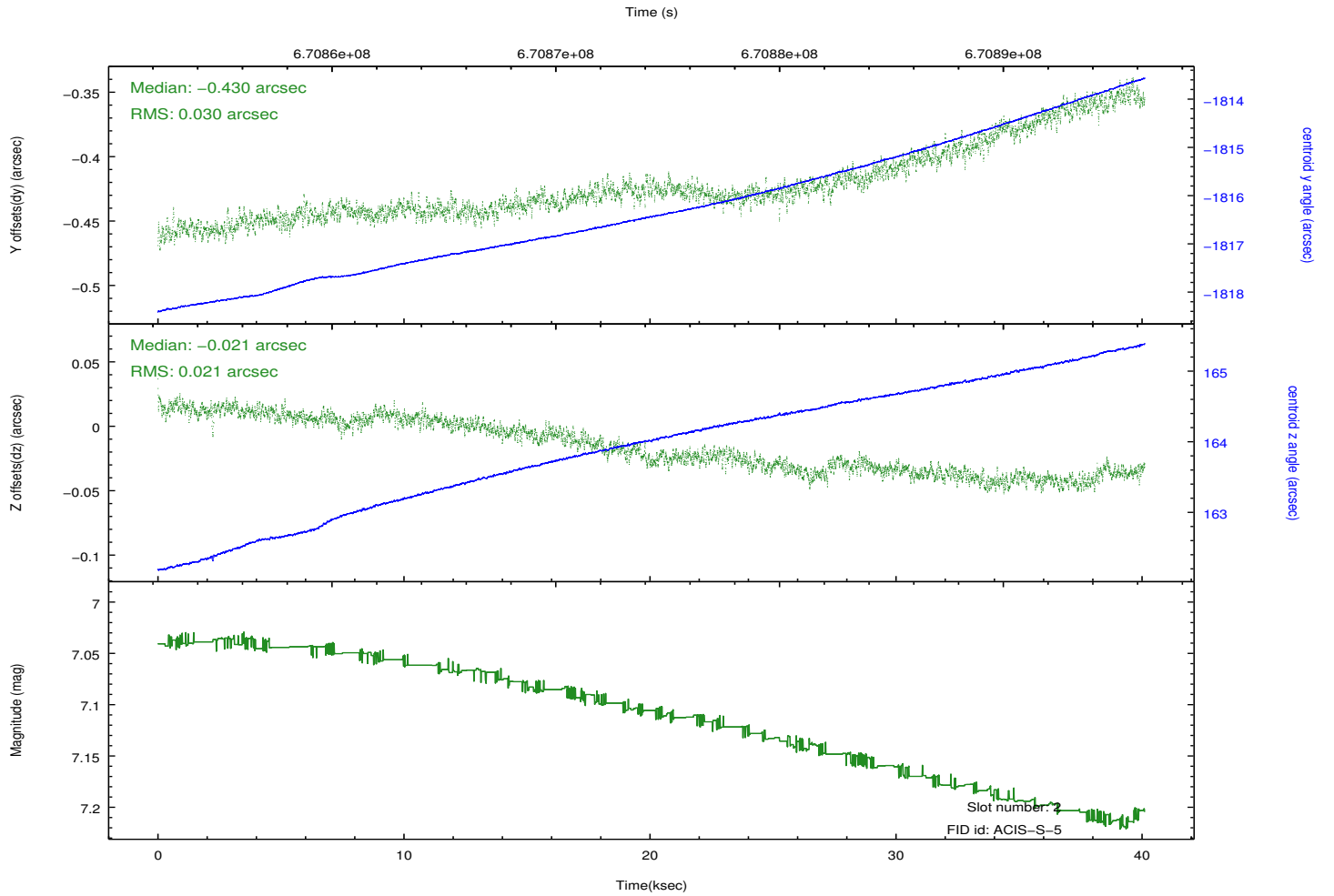
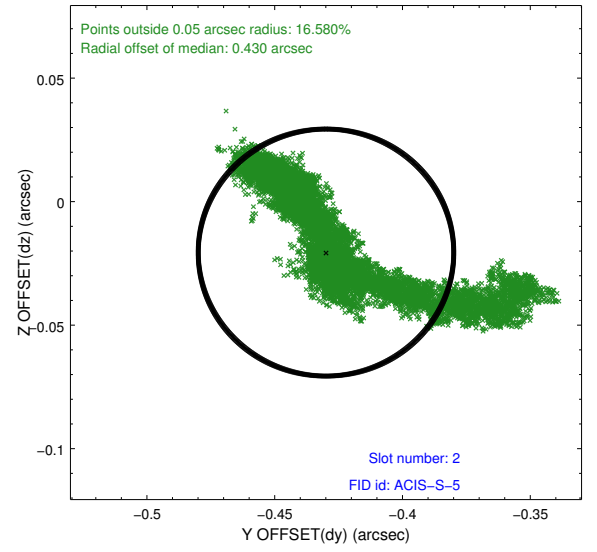
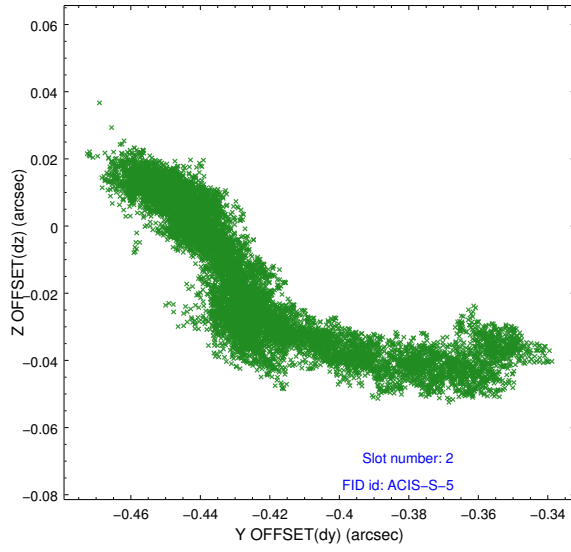
2.5.1 Slot 0



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)	2019.04.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	40.064400308251

A.2 Comments

Two optional chips were dropped.

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).