

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 19004 - L2 Version 1
Chandra X-Ray Center

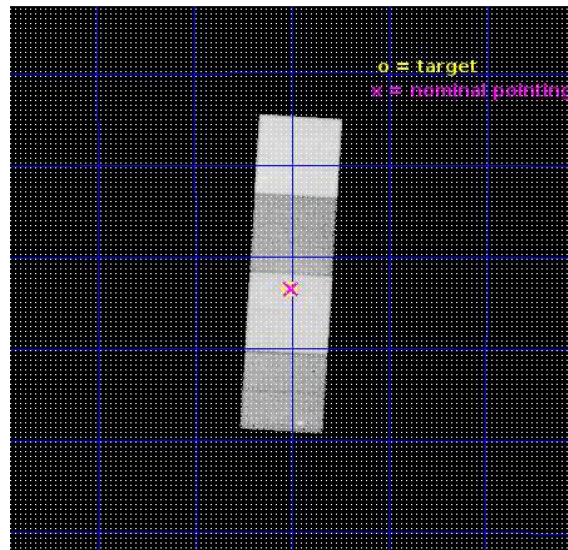
L2 Processing Date : Feb 6 2017

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
2.4.5	Slot 7	13
2.5	FID Slots	14
2.5.1	Slot 0	14
2.5.2	Slot 1	15
2.5.3	Slot 2	16
A	Summary	17
A.1	Status	17
A.2	Comments	17

1 Front

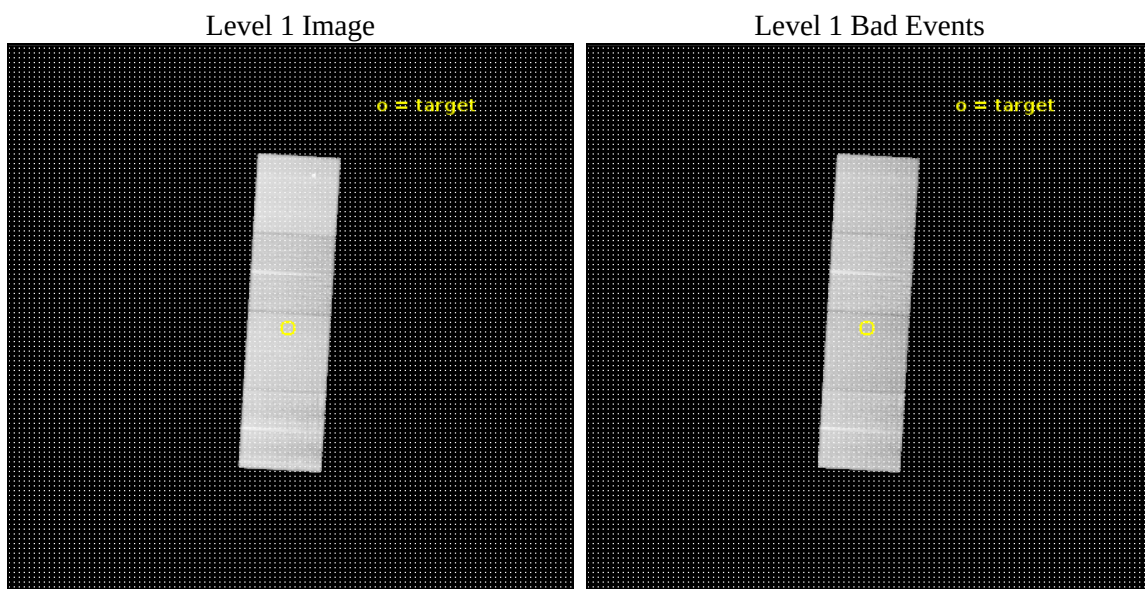
seq_num	401870	Sequence number
obs_id	19004	Observation id
title	Dust scattering halo of the peculiar black hole binary 4U 1630-47	
observer	Emrah Kalemci	Principal investigator
object	4U 1630-47	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	248.506667	Observer's specified target RA [deg]
dec_targ	-47.393	Observer's specified target Dec [deg]
ra_nom	248.50178594228	Nominal RA [deg]
dec_nom	-47.391550620373	Nominal Dec [deg]
roll_nom	93.354639860834	Nominal Roll [deg]
revision	1	Processing version of data
ontime	39717.200305581	Sum of GTIs [s]
livetime	39198.265844211	Livetime [s]
ontime5	39717.200305581	Sum of GTIs [s]
ontime6	39717.200305581	Sum of GTIs [s]
ontime7	39717.200305581	Sum of GTIs [s]
ontime8	39717.200305581	Sum of GTIs [s]
l2events	445631	Number of level 2 events



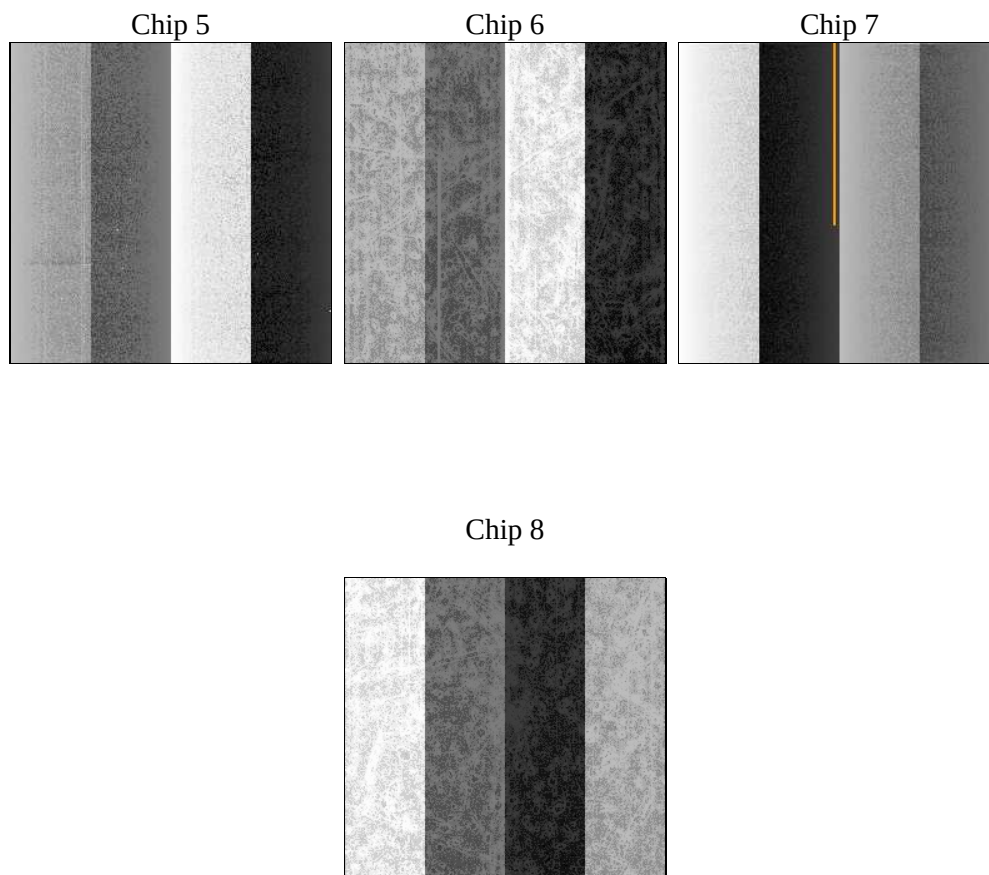
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	39654.901000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	39717.200305581	Sum of GTIs [s]
caldsver	4.7.3	 	ontime5	39717.200305581	Sum of GTIs [s]
date	2017-02-06T14:36:36	Date and time of file creation	ontime6	39717.200305581	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	39717.200305581	Sum of GTIs [s]
			ontime8	39717.200305581	Sum of GTIs [s]
			l1events	1470699	Number of level 1 events

2.1.4 Events

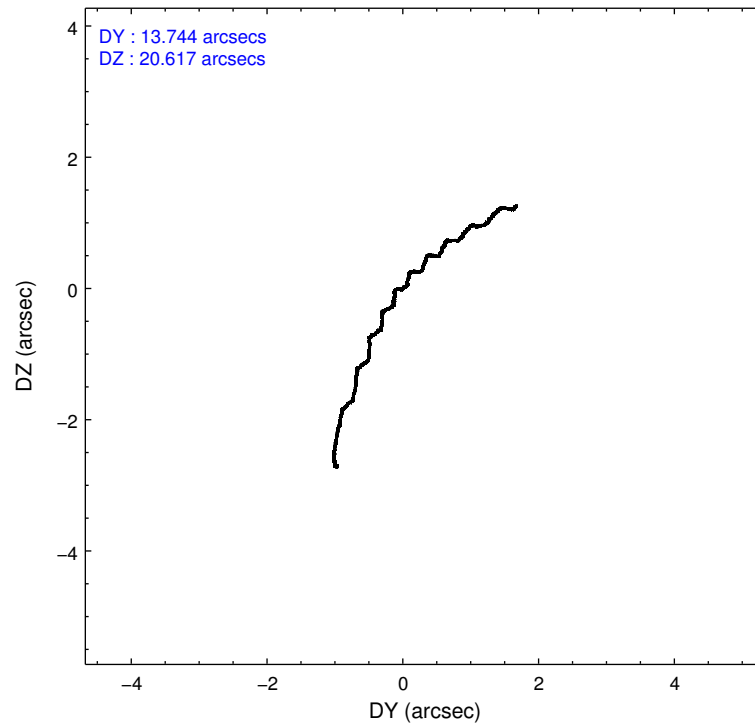
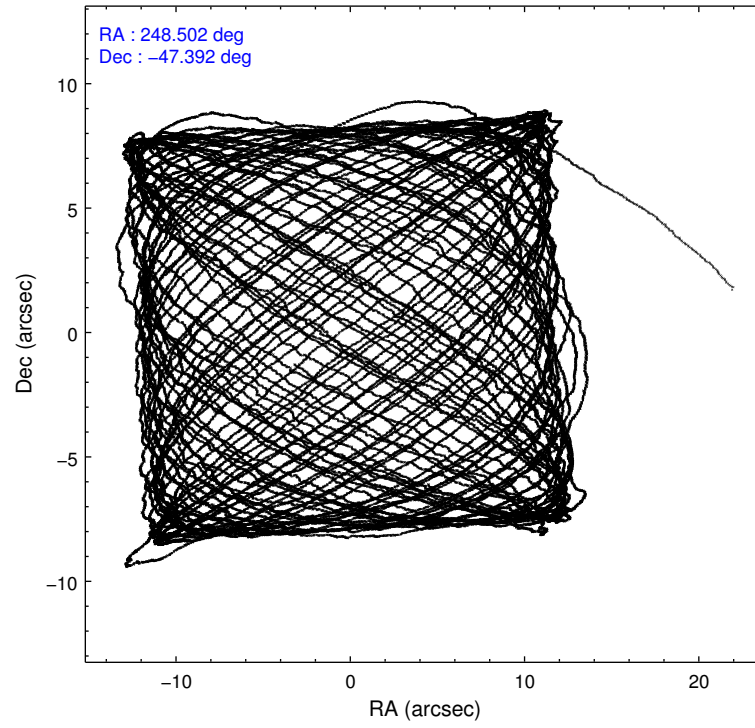
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	435750	293415	366805	374729
rejected events	226188	251486	197395	268721
rejected %	51%	85%	53%	71%

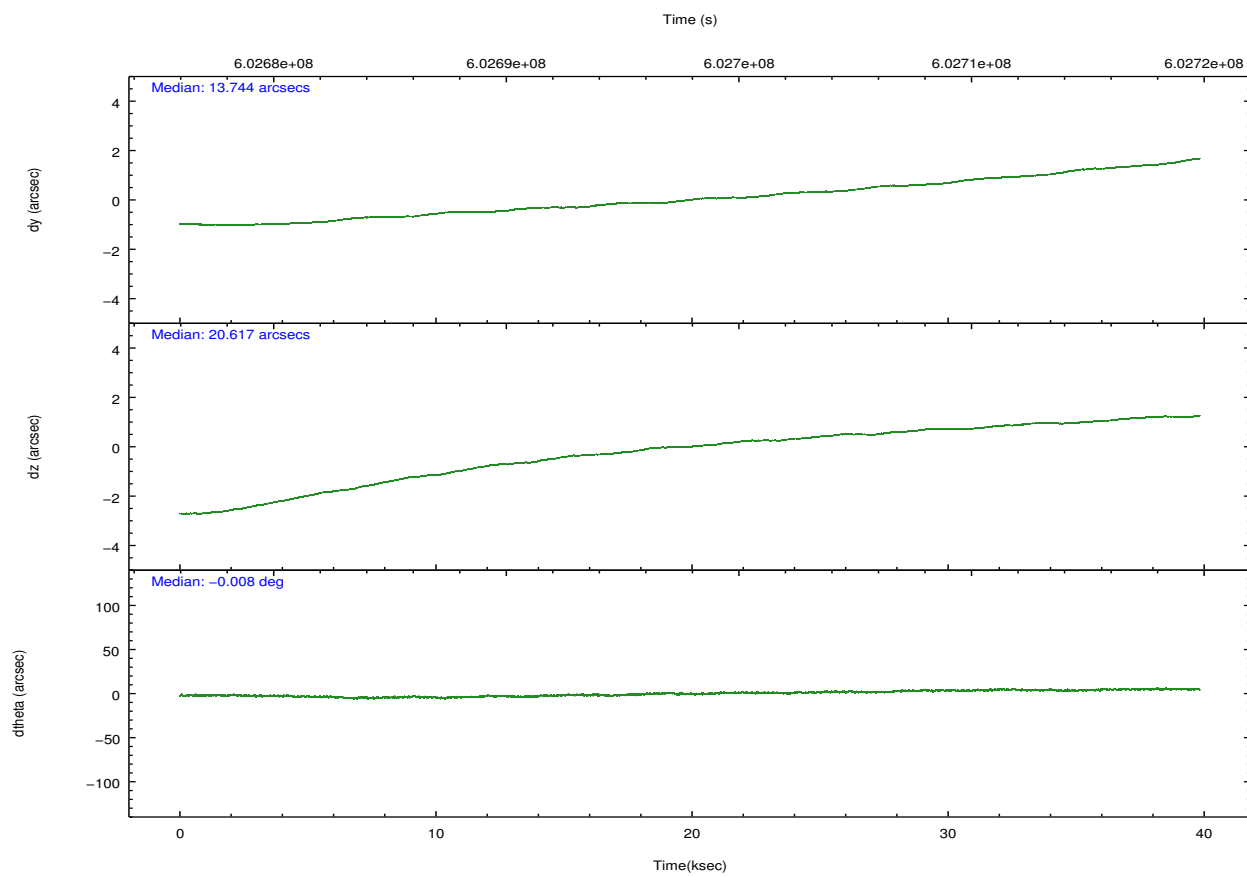
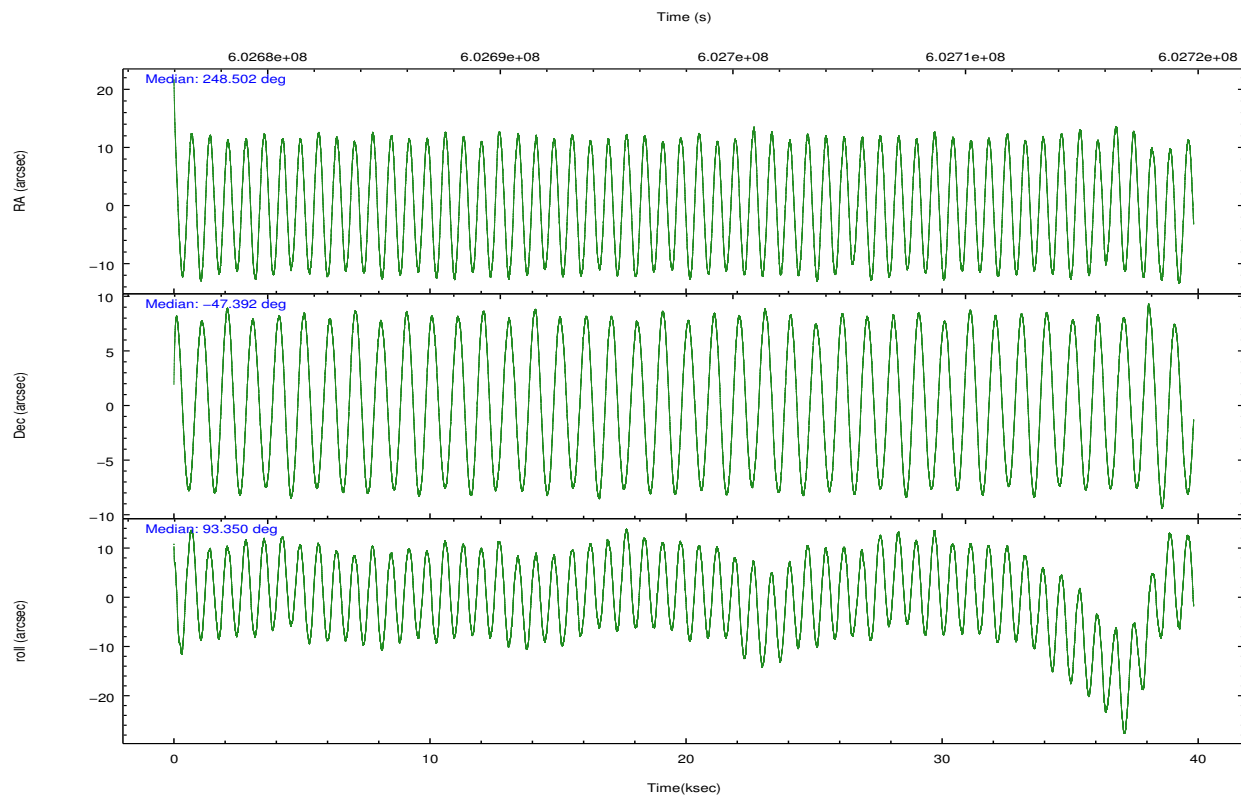
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	13032	18522	15845	33691
	2%	6%	4%	8%
grade 1 events	994	170	507	319
	0%	0%	0%	0%
grade 2 events	66122	8789	37042	25422
	15%	2%	10%	6%
grade 3 events	7046	3478	13930	10228
	1%	1%	3%	2%
grade 4 events	6941	3408	13689	9462
	1%	1%	3%	2%
grade 5 events	30509	13017	34967	19611
	7%	4%	9%	5%
grade 6 events	116445	7736	88916	27216
	26%	2%	24%	7%
grade 7 events	194661	238295	161909	248780
	44%	81%	44%	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	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	248.524514	248.5017859422793	CCD I2 on	N	N
[deg] Pointing Dec	-47.414258	-47.39155062037305	CCD I3 on	N	N
[deg] Pointing Roll	93.214743	93.35463986083415	CCD S0 on	O1	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	Y	Y
[s] Observation start time (MET)	602678152.184000	602677220.39064	CCD S5 on	O2	N
Observation start date	2017-02-05T10:34:43	2017-02-05T10:20:20	Number of optional ACIS chips dropped	2	2
[s] Observation end time (MET)	602717807.184000	602718031.793	On-chip summing requested	N	N
Observation end date	2017-02-05T21:35:38	2017-02-05T21:40:31	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

2.3 Aspect



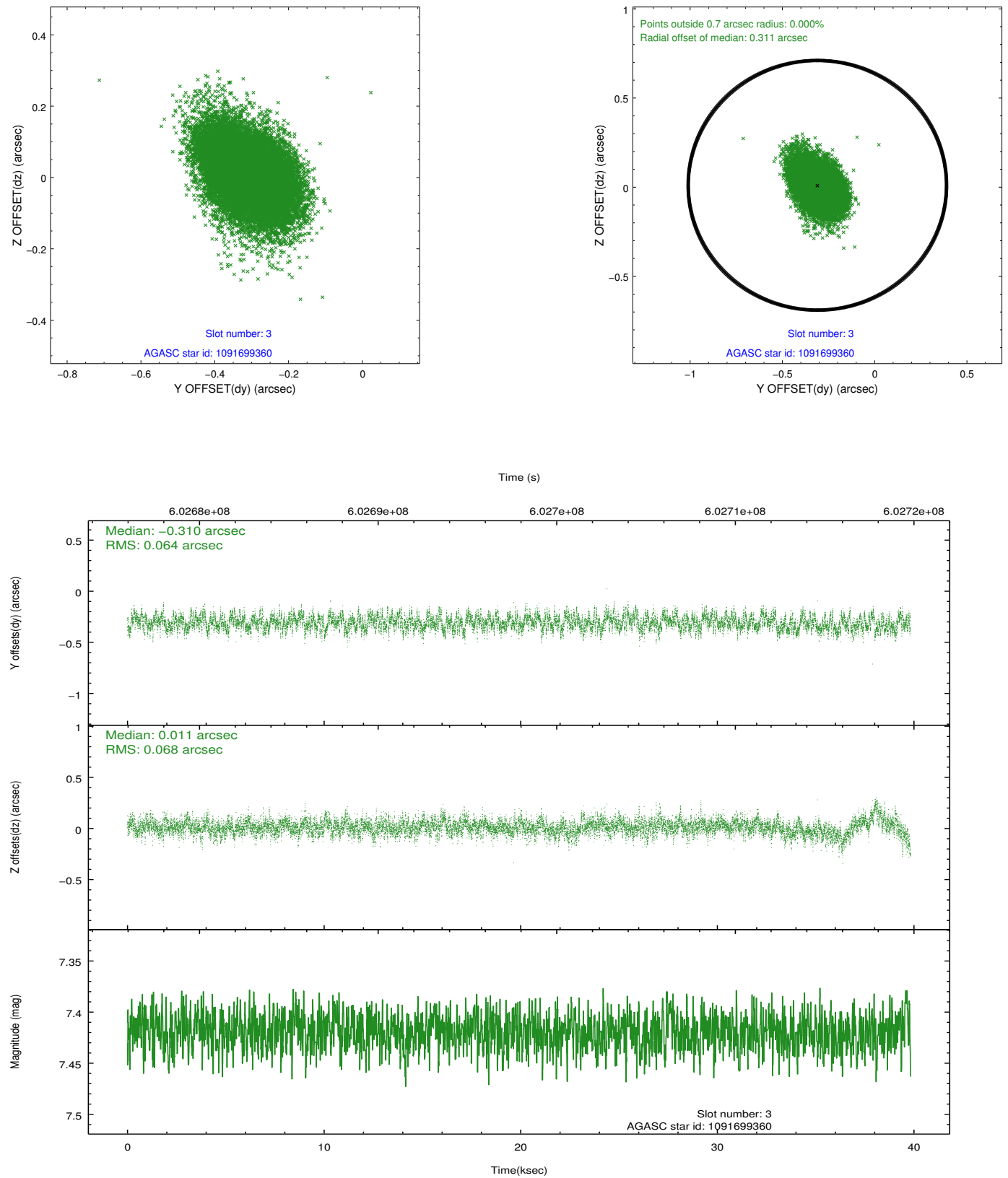


Slot Statistics

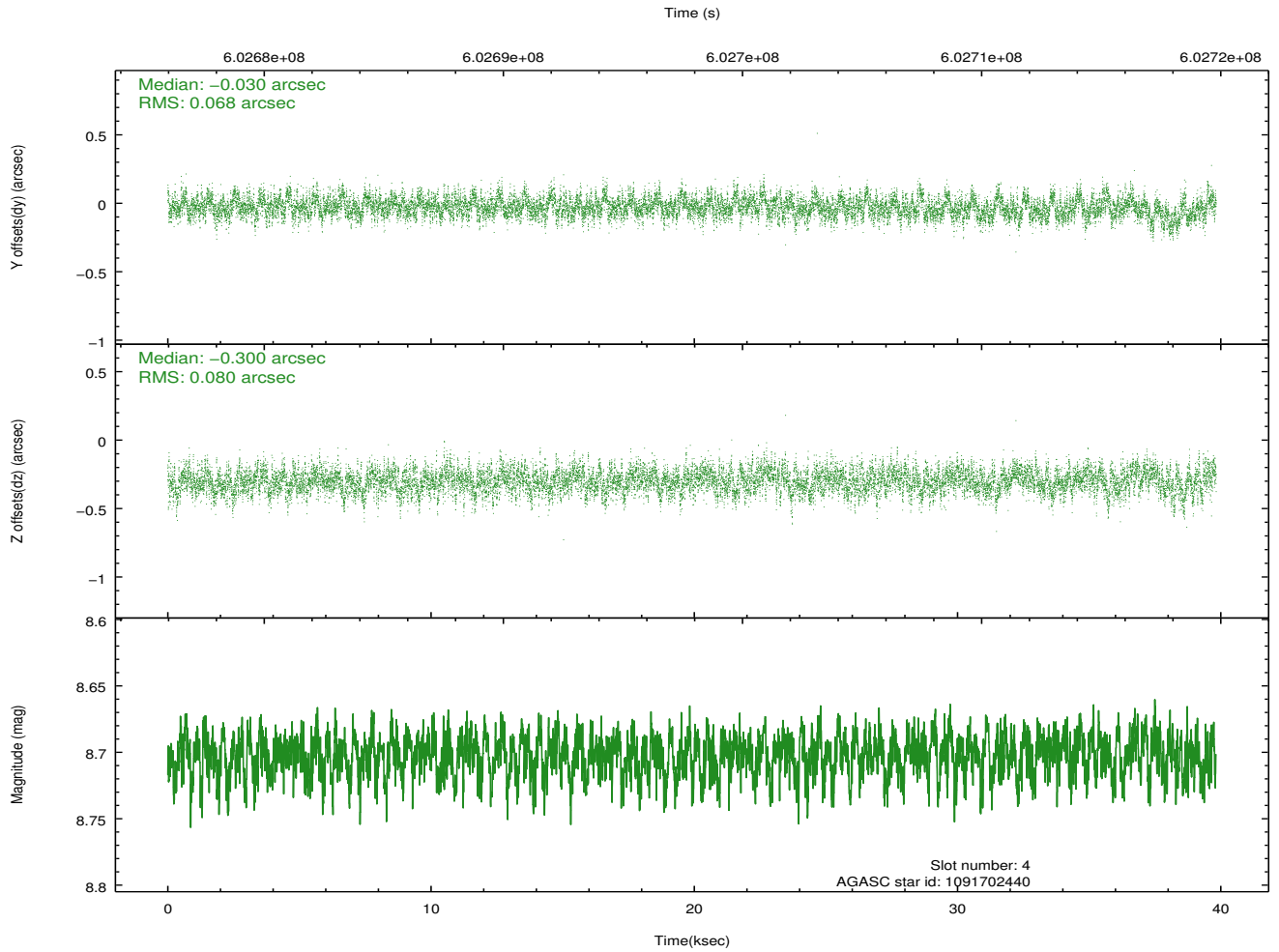
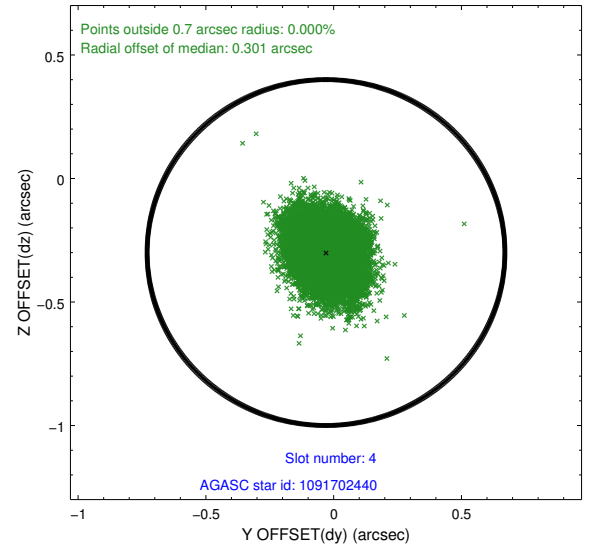
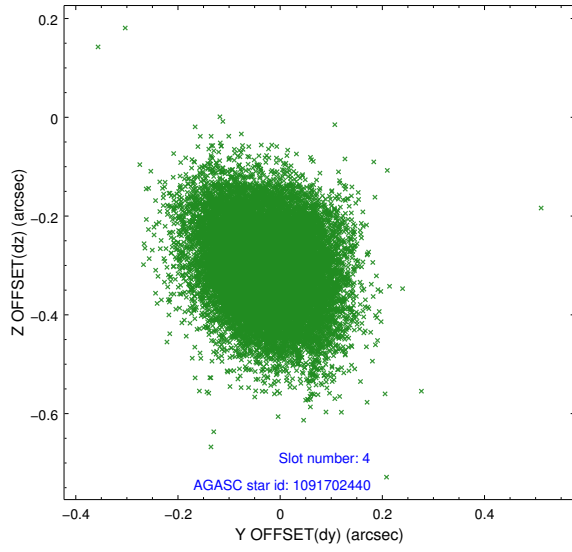
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.14	9714	0.246	-0.081	0.020	0.028	0.000000	0.000000	929.59	-1737.54
1	FID		ACIS-S-2	7.05	9713	-0.128	-0.015	0.027	0.070	0.000000	0.000000	-766.68	-1742.12
2	FID		ACIS-S-5	7.17	9711	-0.143	0.101	0.022	0.050	0.000000	0.000000	-1820.03	160.07
3	GUIDE	used	1091699360	7.42	19427	-0.310	0.011	0.097	0.166	248.660725	-47.004364	1454.34	-416.24
4	GUIDE	used	1091702440	8.70	19416	-0.030	-0.300	0.111	0.183	248.295809	-47.683380	-937.01	607.87
5	GUIDE	used	1091705224	9.17	19409	0.117	0.169	0.131	0.214	248.613211	-47.940846	-1904.64	-106.77
6	GUIDE	used	1091709768	7.68	19419	0.165	0.333	0.108	0.168	249.435228	-47.706899	-1188.35	-2142.54
7	GUIDE	used	1091706216	8.99	19409	0.054	-0.202	0.155	0.237	248.520013	-47.617493	-729.54	51.81

2.4 Star Slots

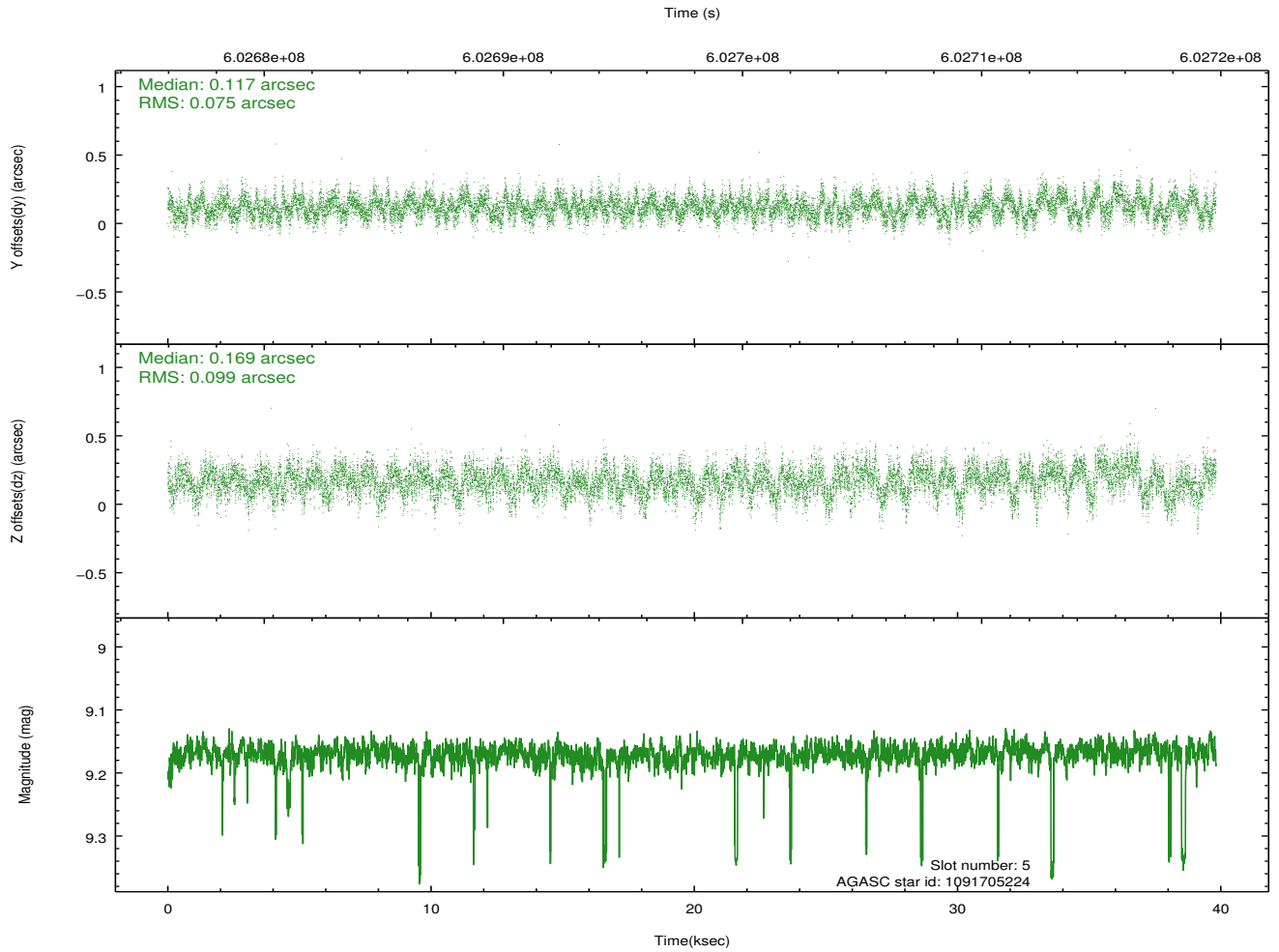
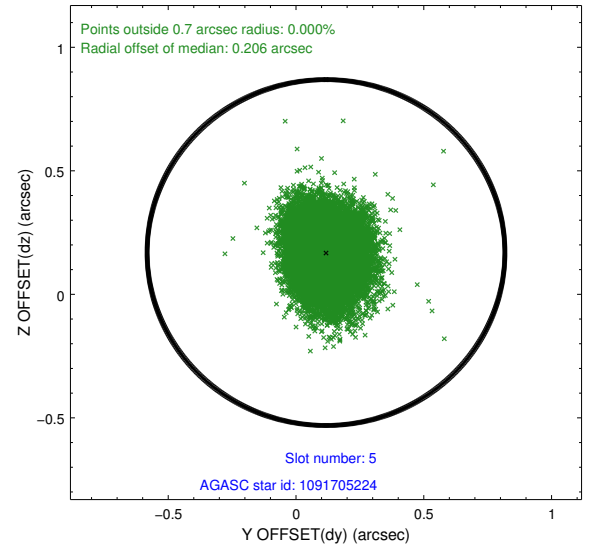
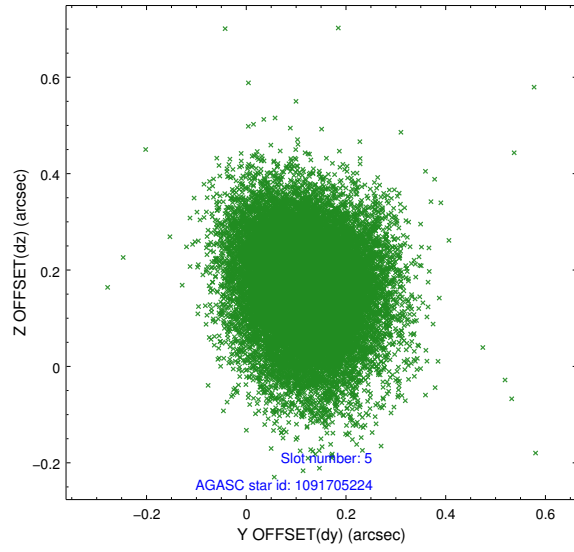
2.4.1 Slot 3



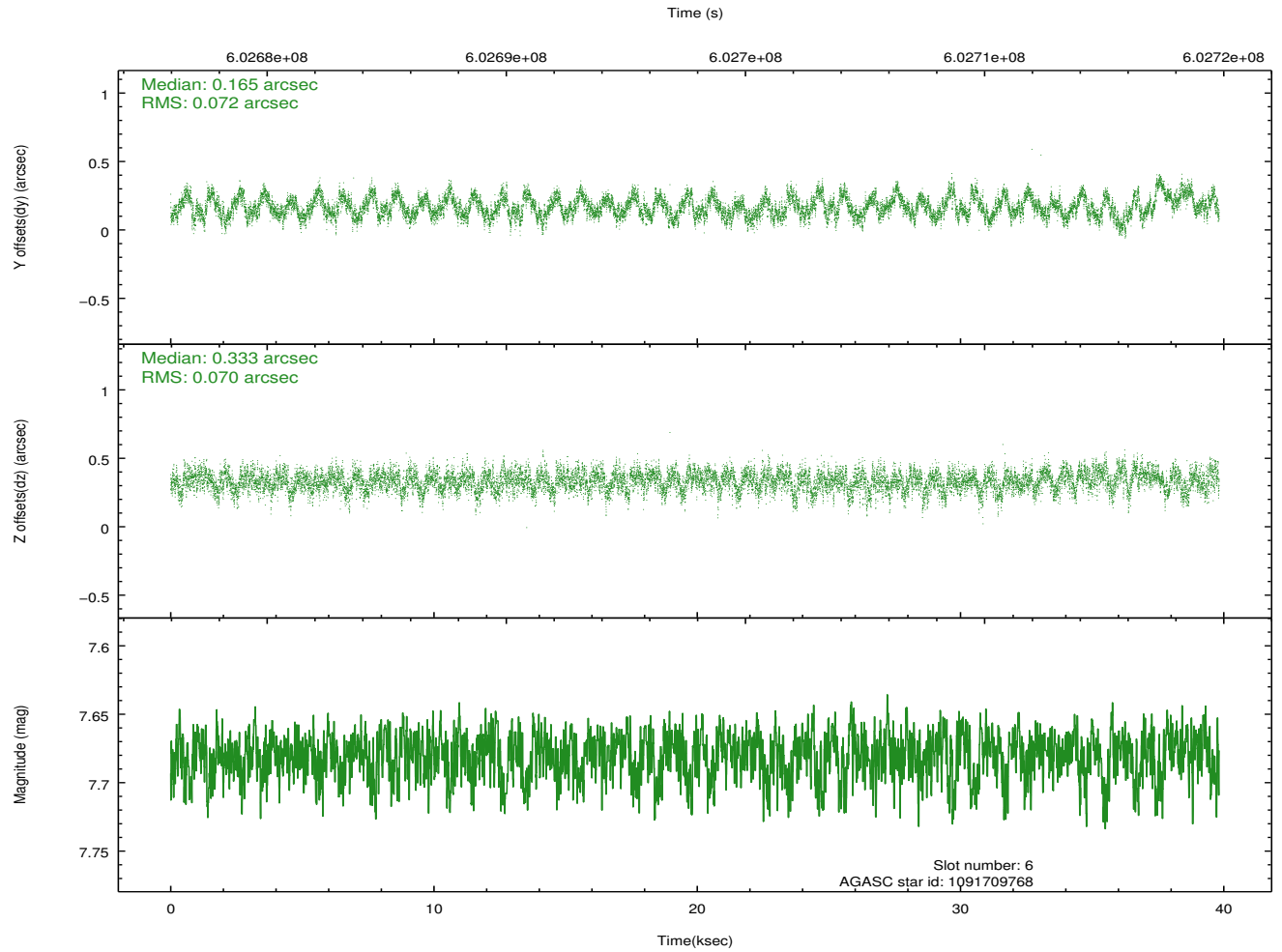
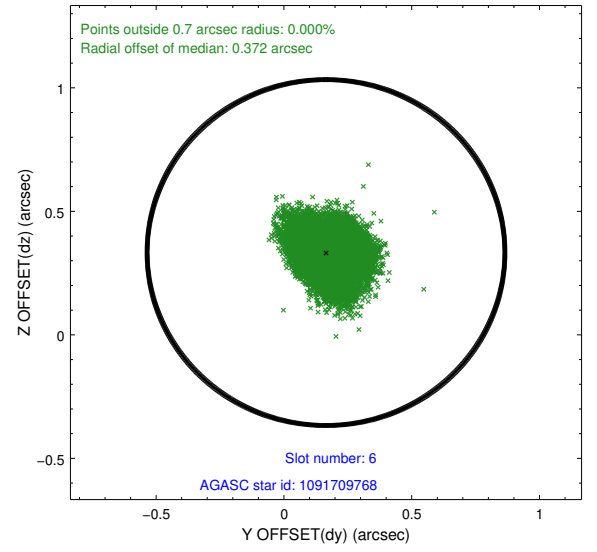
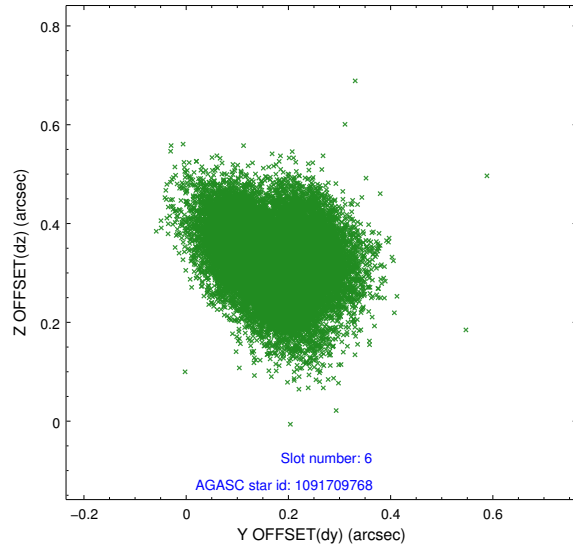
2.4.2 Slot 4



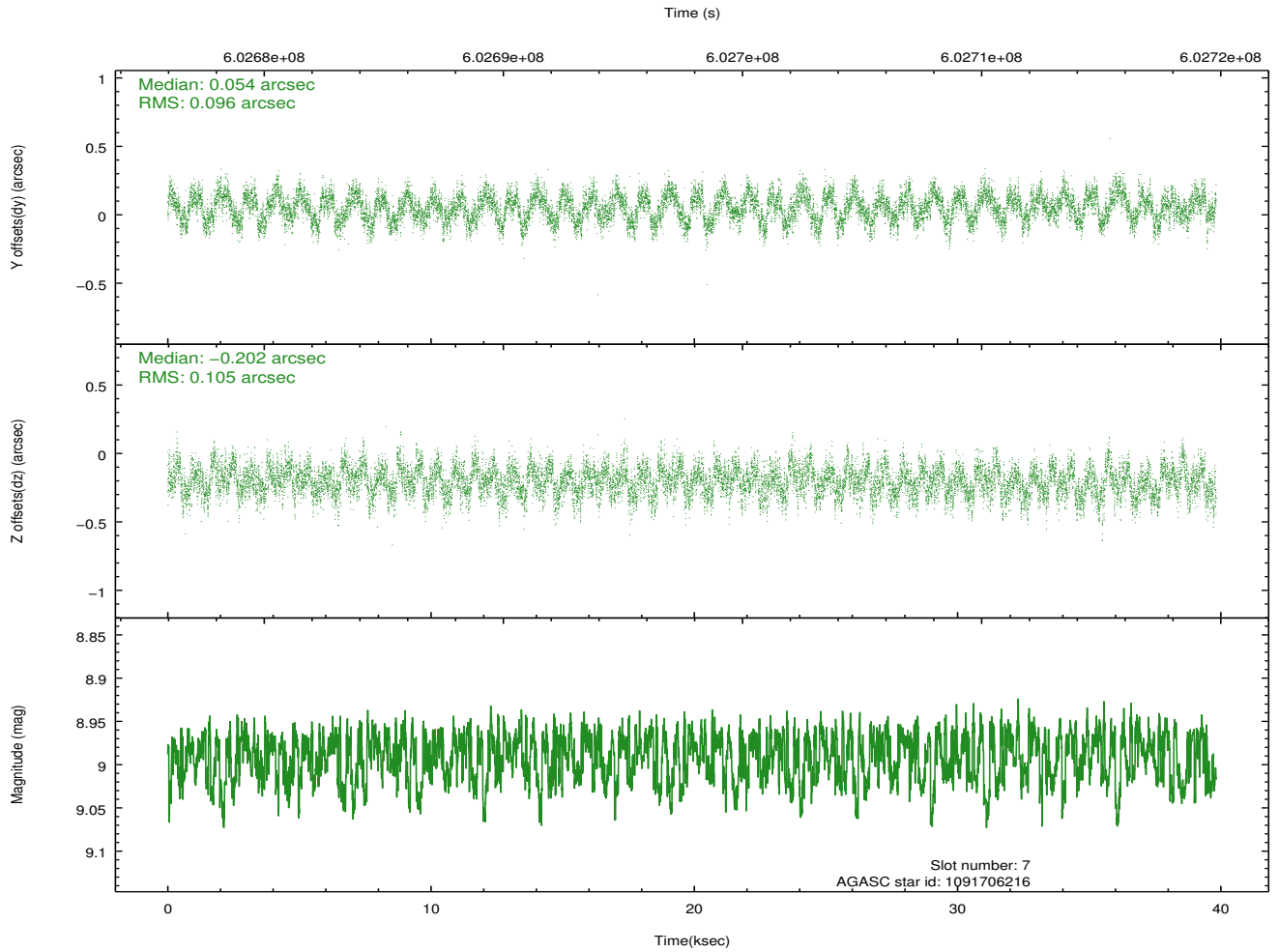
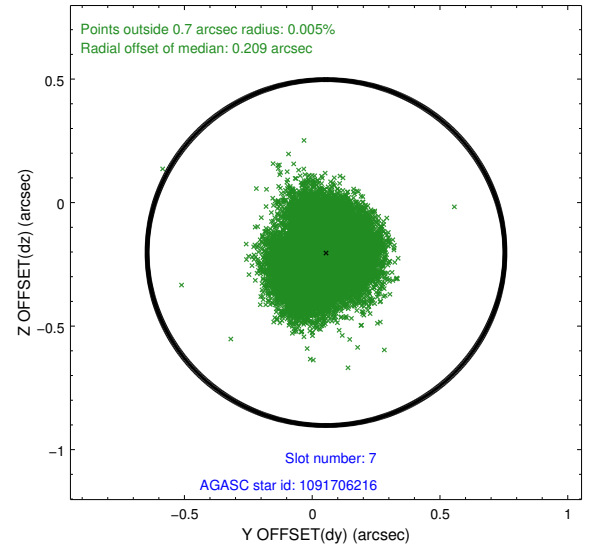
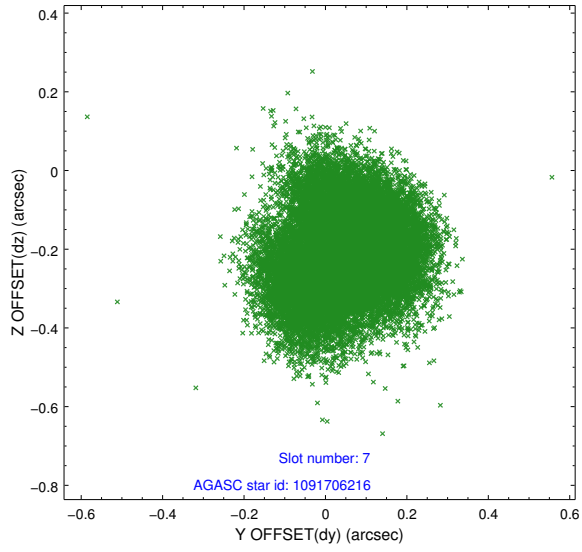
2.4.3 Slot 5



2.4.4 Slot 6

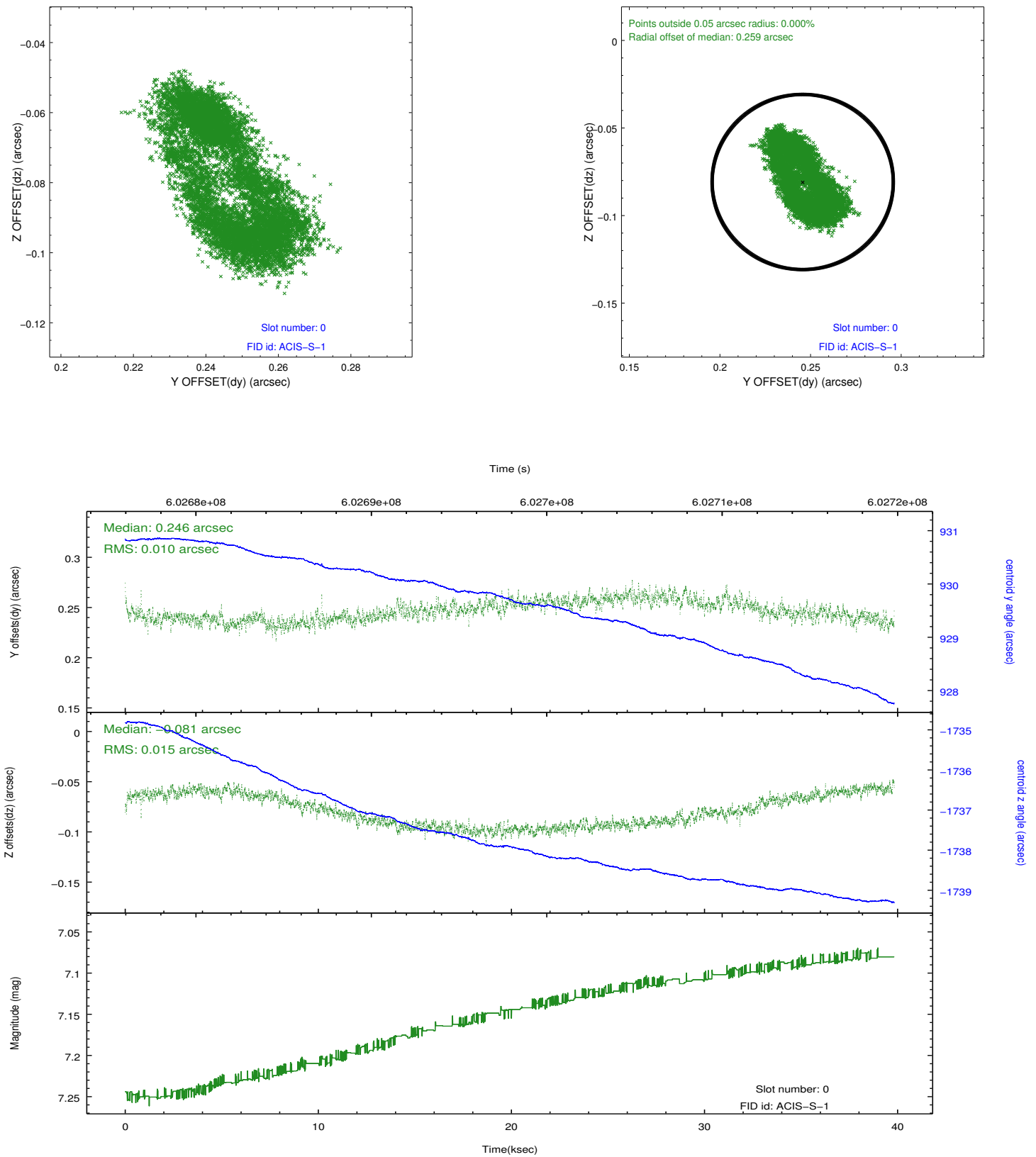


2.4.5 Slot 7

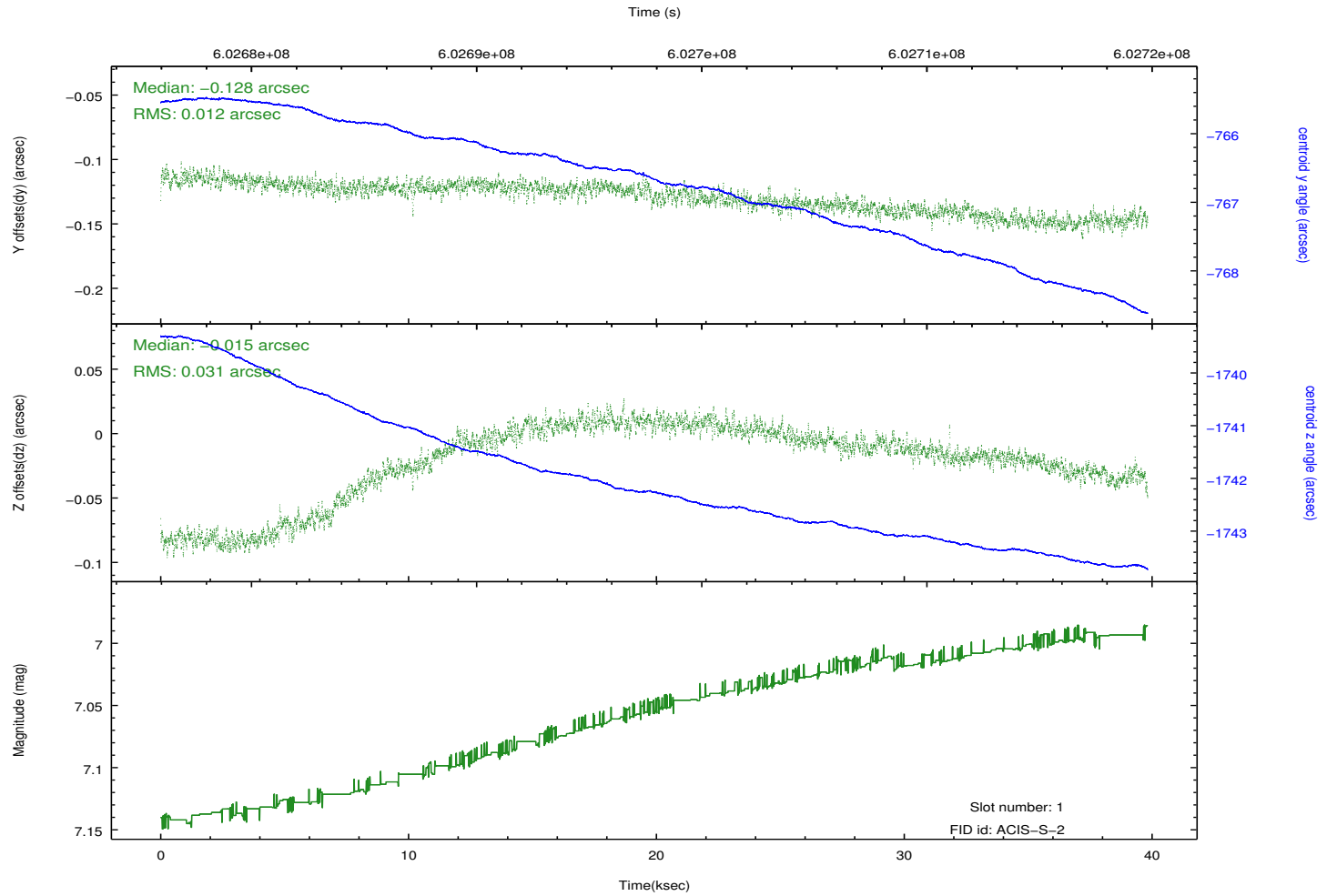
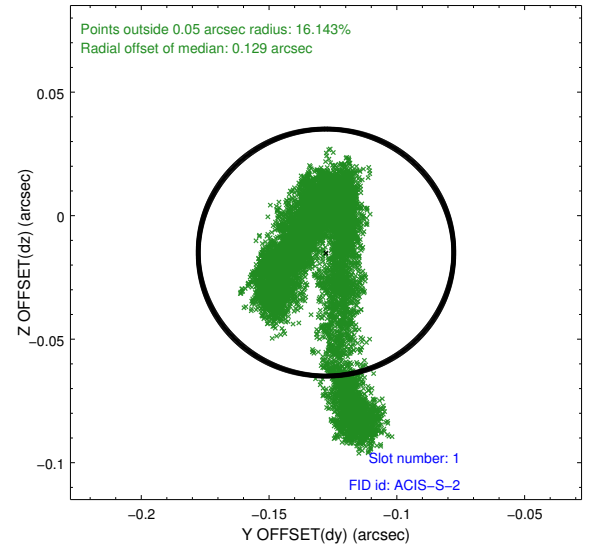
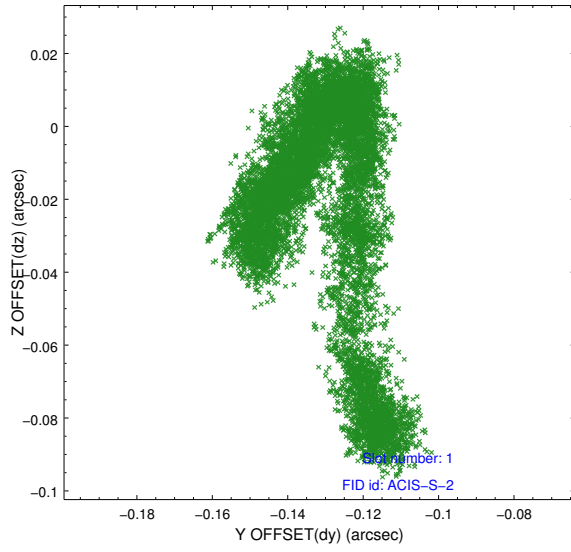


2.5 FID Slots

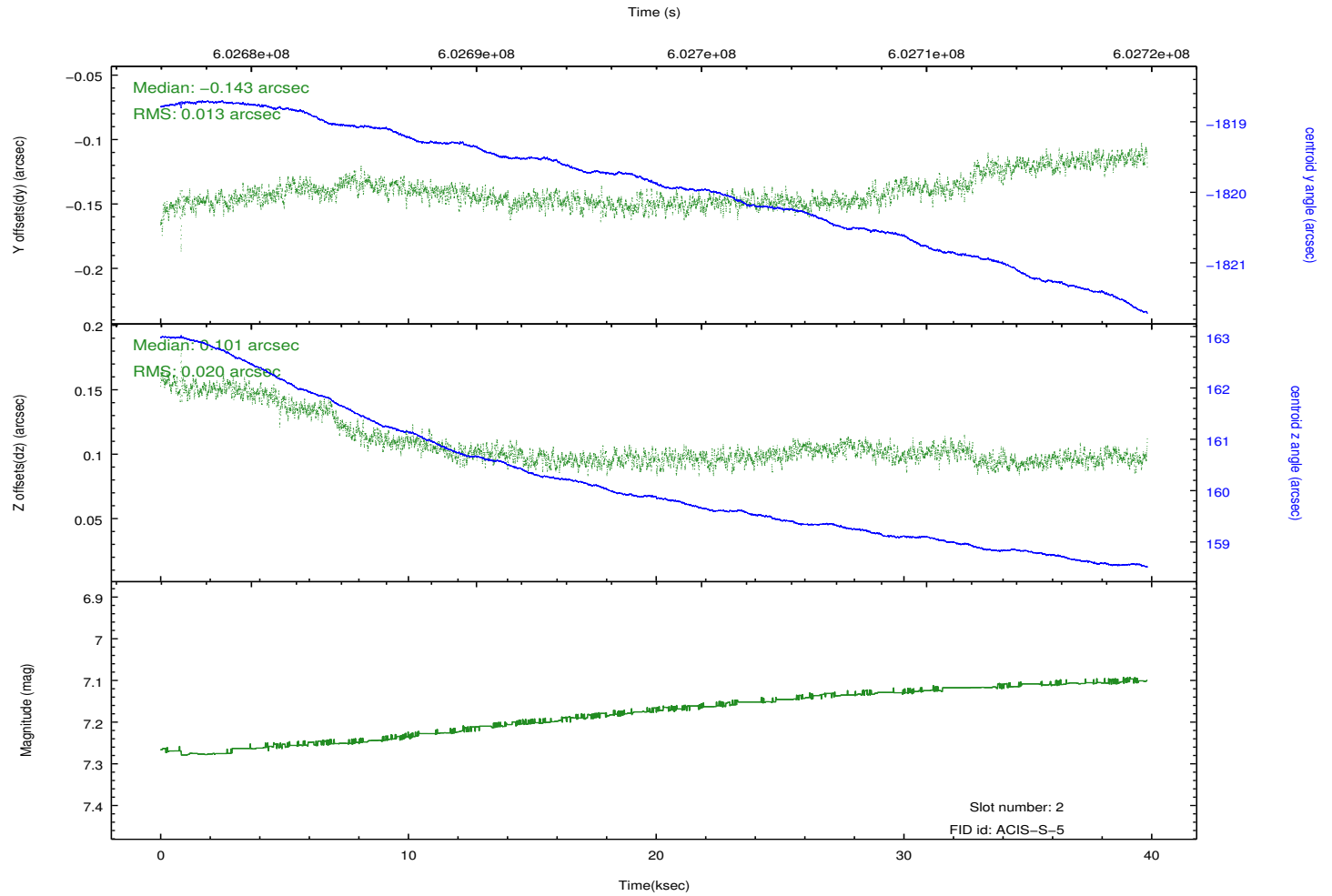
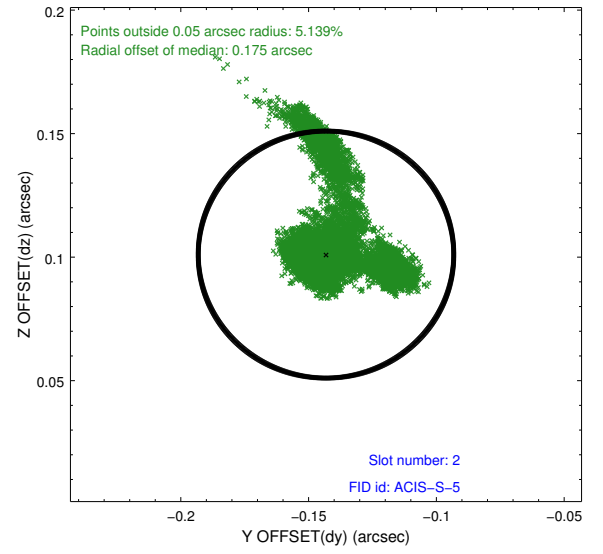
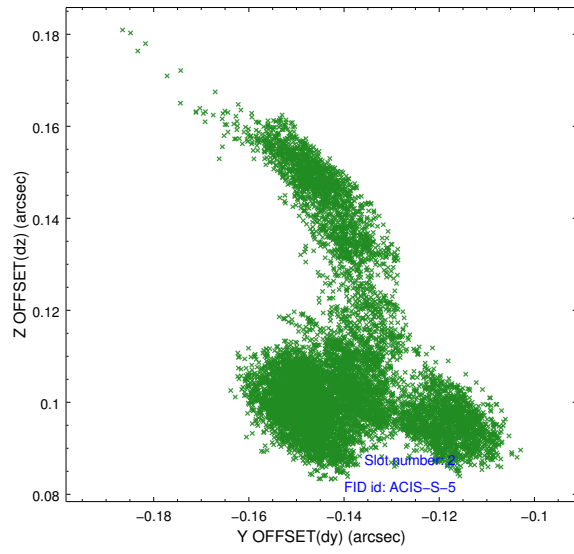
2.5.1 Slot 0



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)	2017.02.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.717200305581

A.2 Comments

Two optional chips were dropped.