

V&V Reference Report

L2 ASCDS Version : 10.5.2

Observation 20011 - L2 Version 2
Chandra X-Ray Center

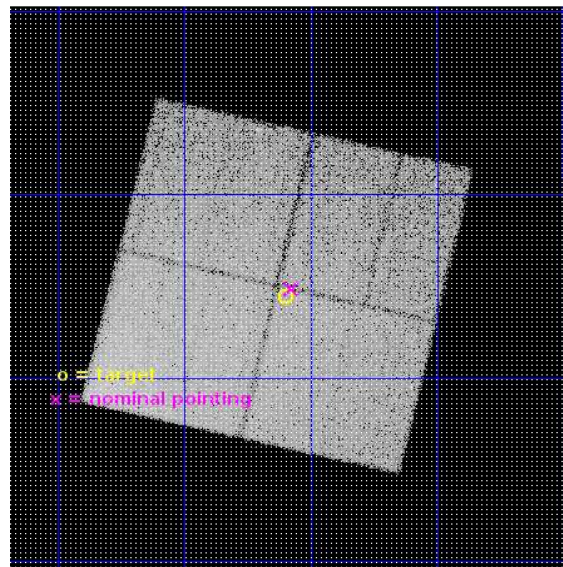
L2 Processing Date : Feb 22 2017

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 6	11
2.4.4	Slot 7	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

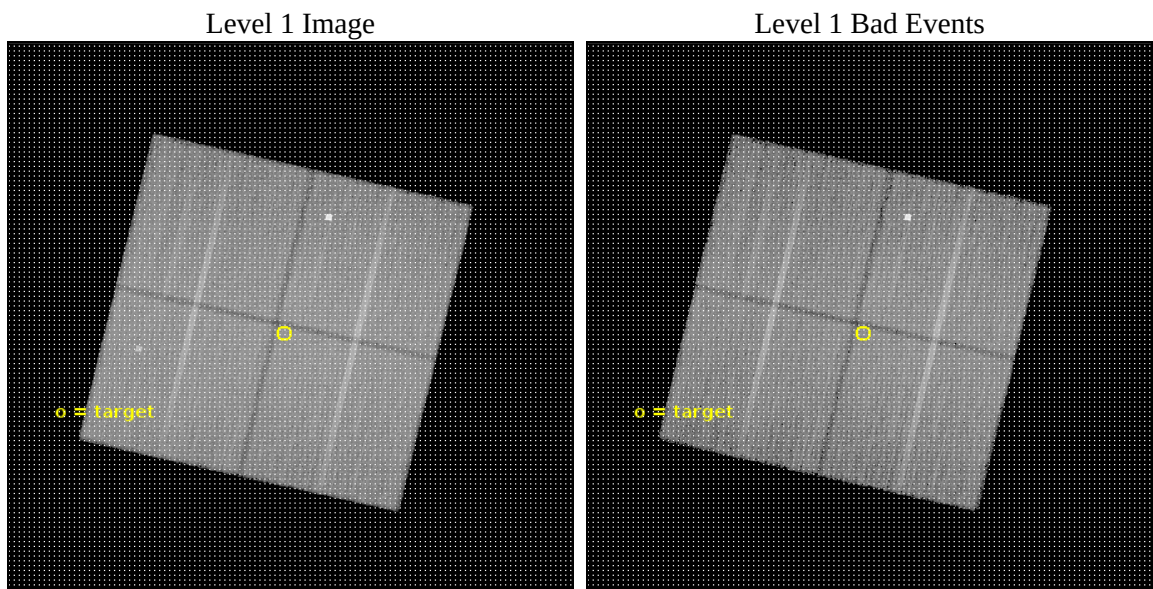
seq_num	801595	Sequence number
obs_id	20011	Observation id
title	Probing ICM on mean free path scales	Proposal title
observer	Irina Zhuravleva	Principal investigator
object	Coma cluster	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	194.649583	Observer's specified target RA [deg]
dec_targ	28.074806	Observer's specified target Dec [deg]
ra_nom	194.64410536444	Nominal RA [deg]
dec_nom	28.081344468098	Nominal Dec [deg]
roll_nom	103.2113126443	Nominal Roll [deg]
revision	2	Processing version of data
ontime	45073.959276557	Sum of GTIs [s]
livetime	44485.034815643	Livetime [s]
ontime0	45070.818216443	Sum of GTIs [s]
ontime1	45073.959276557	Sum of GTIs [s]
ontime2	45070.818165898	Sum of GTIs [s]
ontime3	45073.959276557	Sum of GTIs [s]
l2events	249468	Number of level 2 events



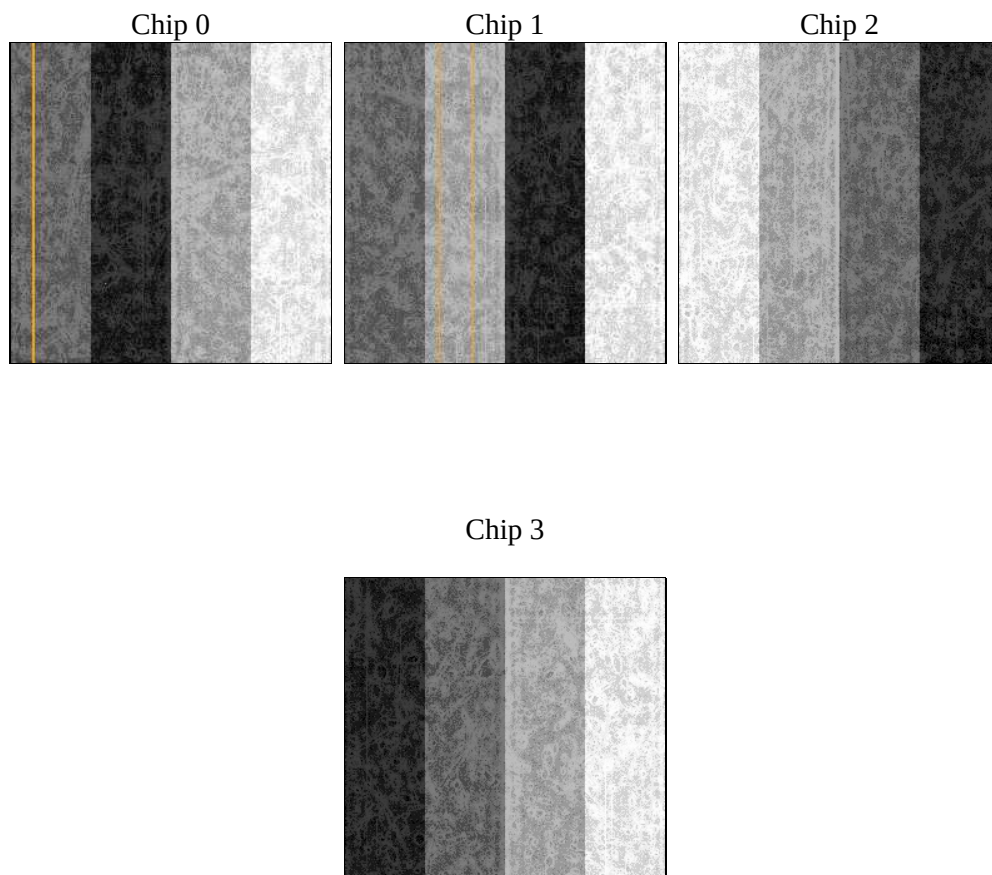
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	45000.000000	[s] Scheduled observation exposure time
ascdsver	10.5.2	Processing system revision	ontime	45073.959276557	Sum of GTIs [s]
caldsver	4.7.3	 	ontime0	45070.818216443	Sum of GTIs [s]
date	2017-02-22T16:31:45	Date and time of file creation	ontime1	45073.959276557	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	45070.818165898	Sum of GTIs [s]
			ontime3	45073.959276557	Sum of GTIs [s]
			l1events	1434003	Number of level 1 events

2.1.4 Events

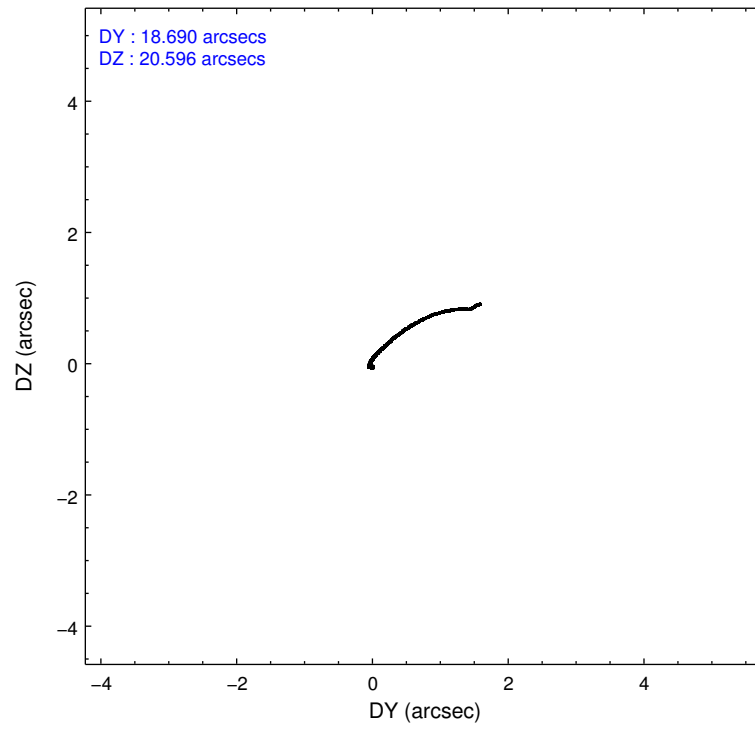
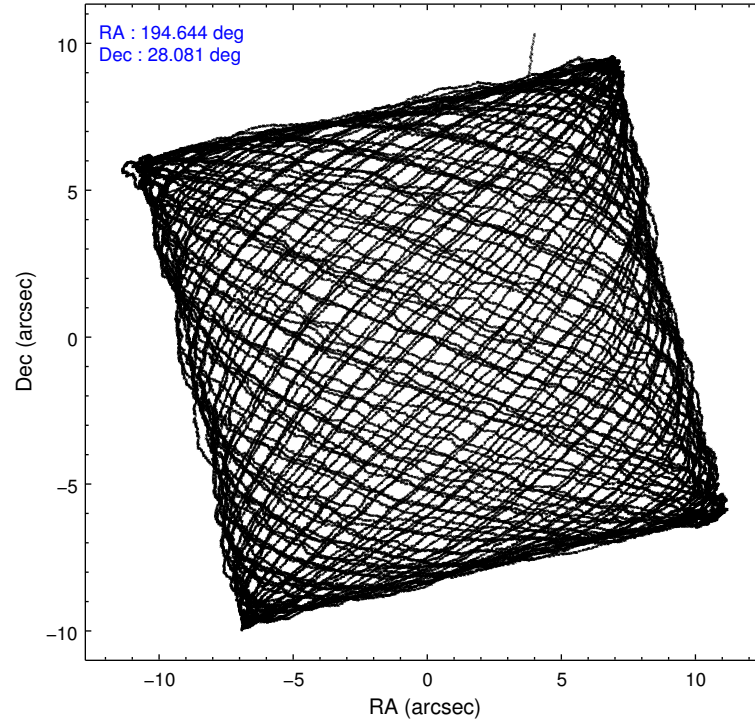
	ccd 0	ccd 1	ccd 2	ccd 3
level 1 events	323144	382575	371046	357238
rejected events	265144	277511	320528	289796
rejected %	82%	72%	86%	81%

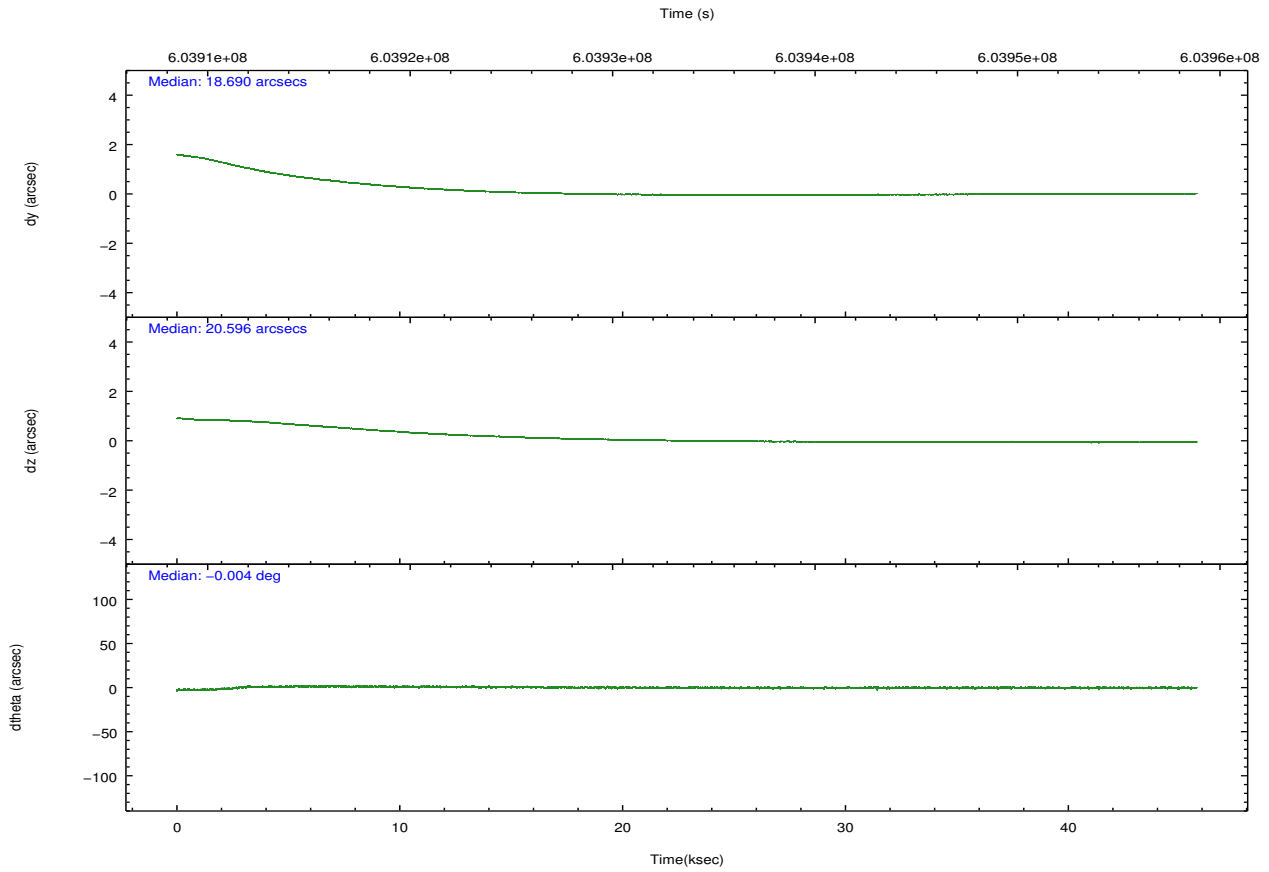
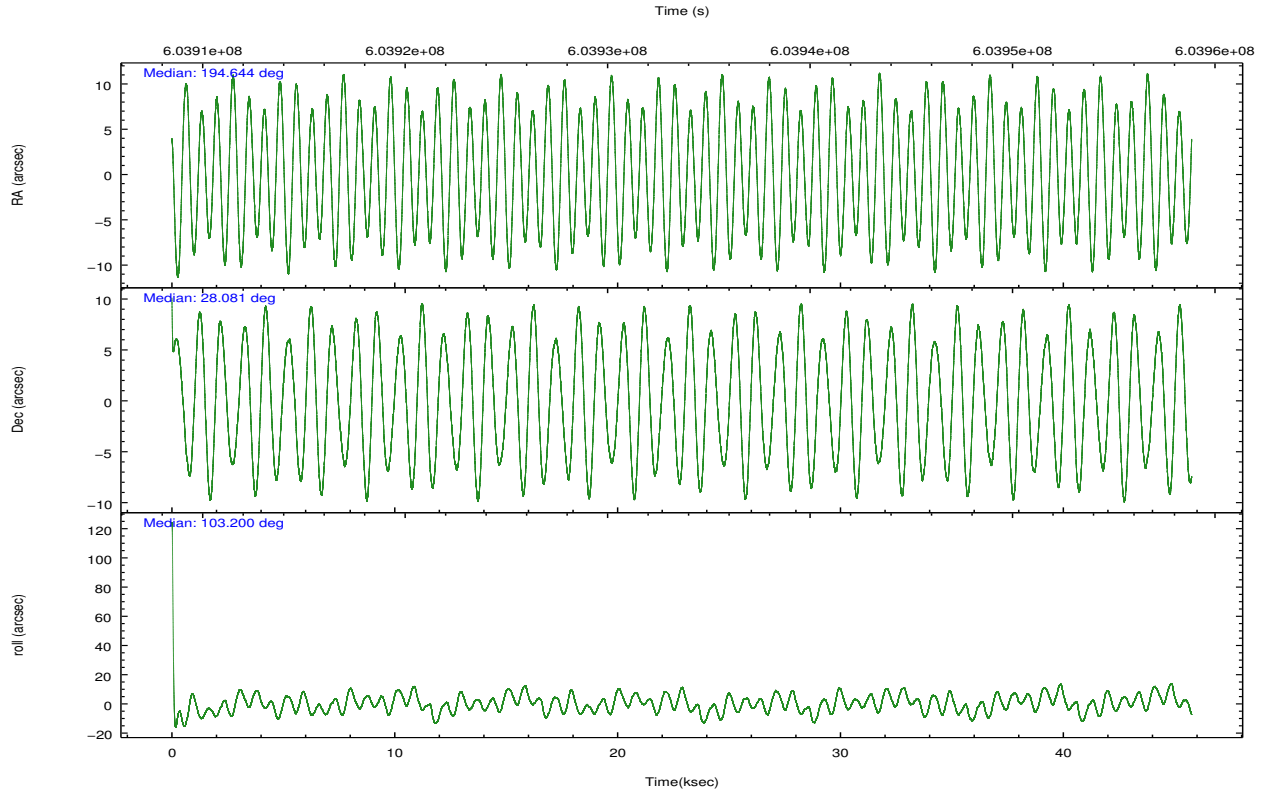
	ccd 0	ccd 1	ccd 2	ccd 3
grade 0 events	29956	63795	25629	38460
	9%	16%	6%	10%
grade 1 events	238	374	14036	284
	0%	0%	3%	0%
grade 2 events	11492	17992	9750	11125
	3%	4%	2%	3%
grade 3 events	4296	5870	3959	4733
	1%	1%	1%	1%
grade 4 events	4033	5686	4013	4682
	1%	1%	1%	1%
grade 5 events	12782	13399	12159	14811
	3%	3%	3%	4%
grade 6 events	8231	11739	7176	8448
	2%	3%	1%	2%
grade 7 events	252116	263720	294324	274695
	78%	68%	79%	76%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-0123	ACIS-0123	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	194.665620	194.6441053644371	Subarray requested	NONE	NONE
[deg] Pointing Dec	28.061289	28.08134446809783	Alternating exposures requested	N	N
[deg] Pointing Roll	102.992449	103.2113126442997	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.782348	-0.7809083437167272			
[mm] SIM defocus	0	0.001439871863259334			
[mm] SIM translation stage pos	-233.592463	-233.5874344608287			
[mm] SIM translation stage offset	0	-0.005018542100998502			
[s] Observation start time (MET)	603911543.184000	603910245.23708			
Observation start date	2017-02-19T17:11:14	2017-02-19T16:50:45			
[s] Observation end time (MET)	603956543.184000	603956927.83979			
Observation end date	2017-02-20T05:41:14	2017-02-20T05:48:47			
Read mode	TIMED	TIMED			

2.3 Aspect



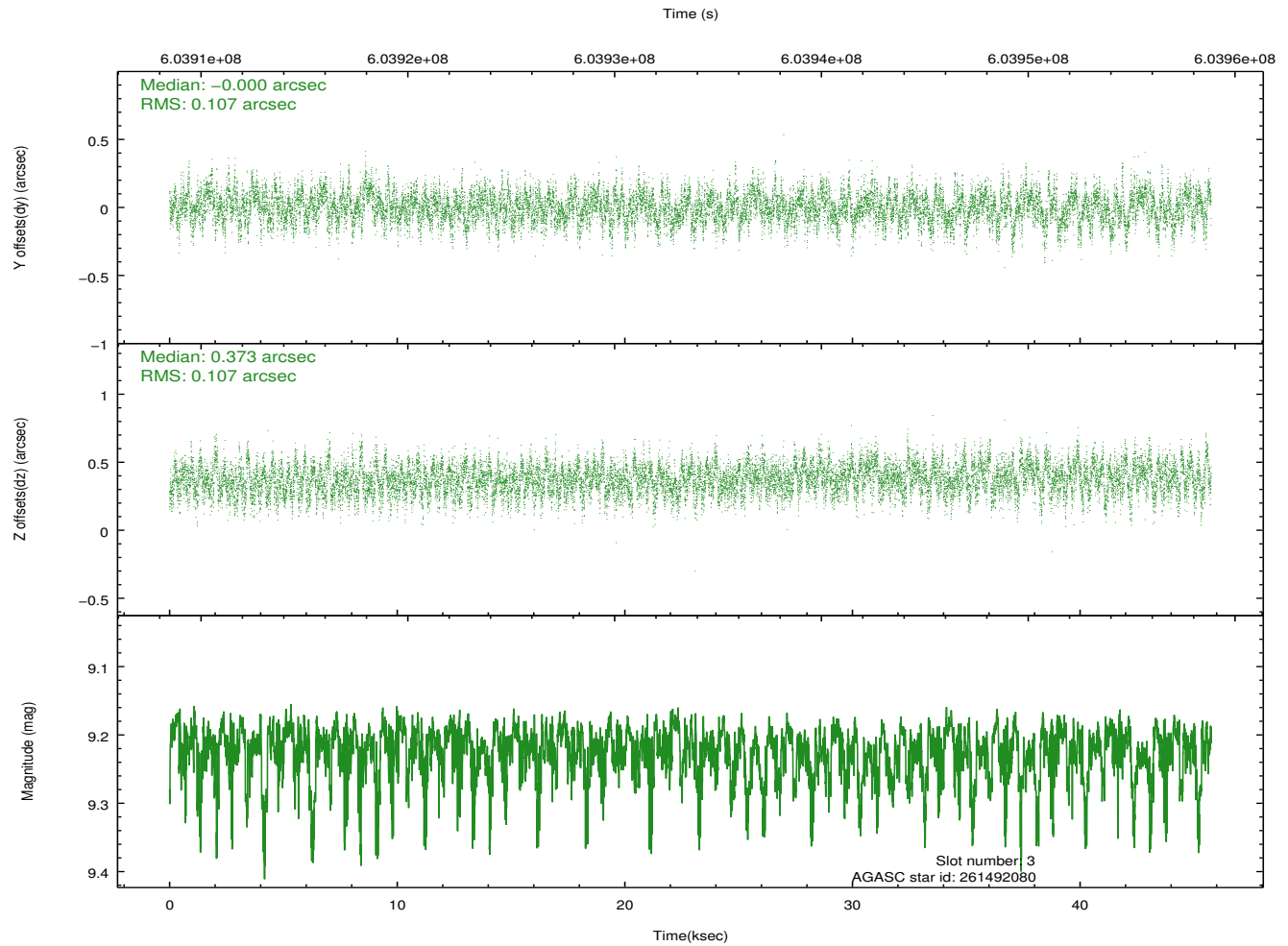
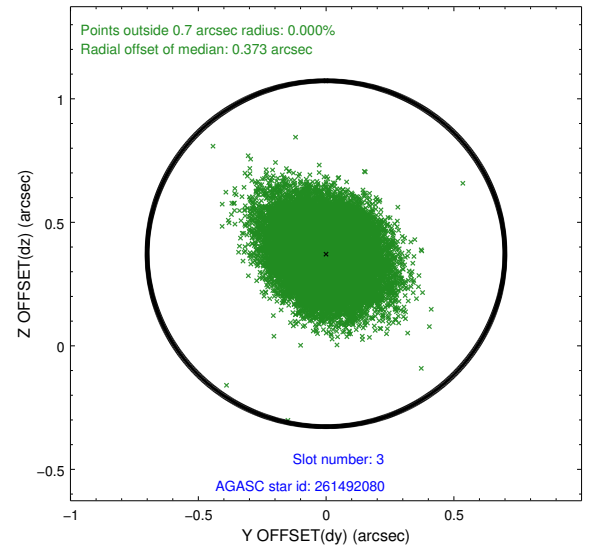
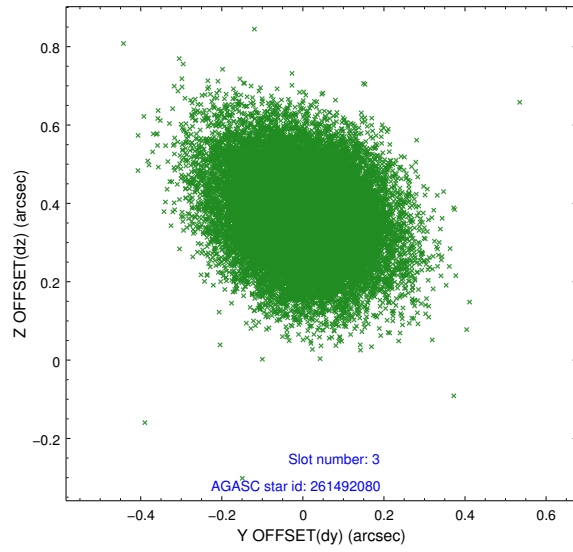


Slot Statistics

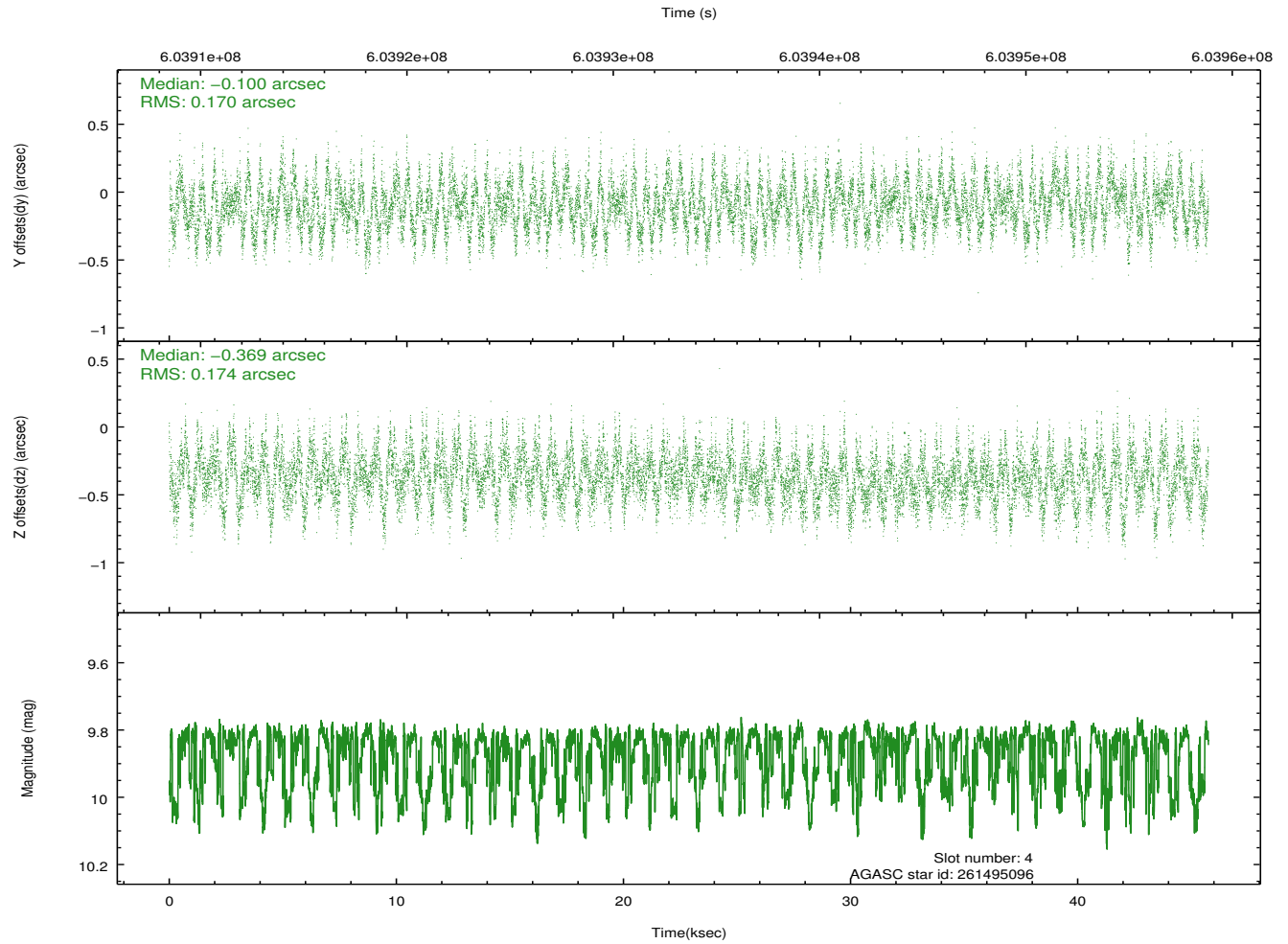
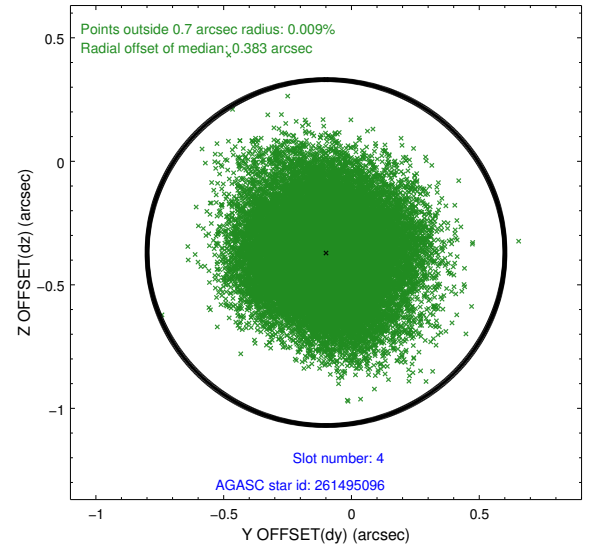
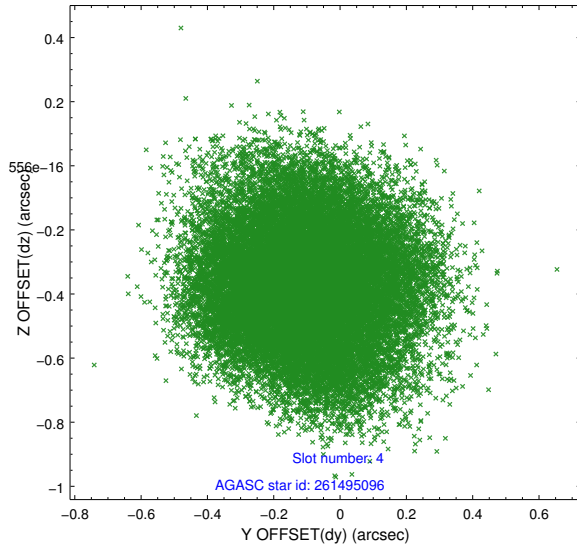
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-1	7.23	11158	0.074	-0.071	0.010	0.020	0.000000	0.000000	920.58	-844.54
1	FID		ACIS-I-5	7.22	11160	-0.379	0.021	0.009	0.017	0.000000	0.000000	-1828.06	1052.93
2	FID		ACIS-I-6	7.24	11160	0.213	0.121	0.008	0.016	0.000000	0.000000	386.16	1697.61
3	GUIDE	used	261492080	9.22	22301	-0.000	0.373	0.161	0.261	194.976344	28.631585	1781.54	-1417.86
4	GUIDE	used	261495096	9.86	22273	-0.100	-0.369	0.266	0.404	194.411078	28.430653	1477.78	486.67
5	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	GUIDE	used	261502496	7.35	22320	0.001	0.006	0.127	0.206	194.887297	28.065668	-141.89	-689.85
7	GUIDE	used	261505232	9.70	22286	0.109	-0.005	0.211	0.327	194.216553	27.802521	-585.36	1601.70

2.4 Star Slots

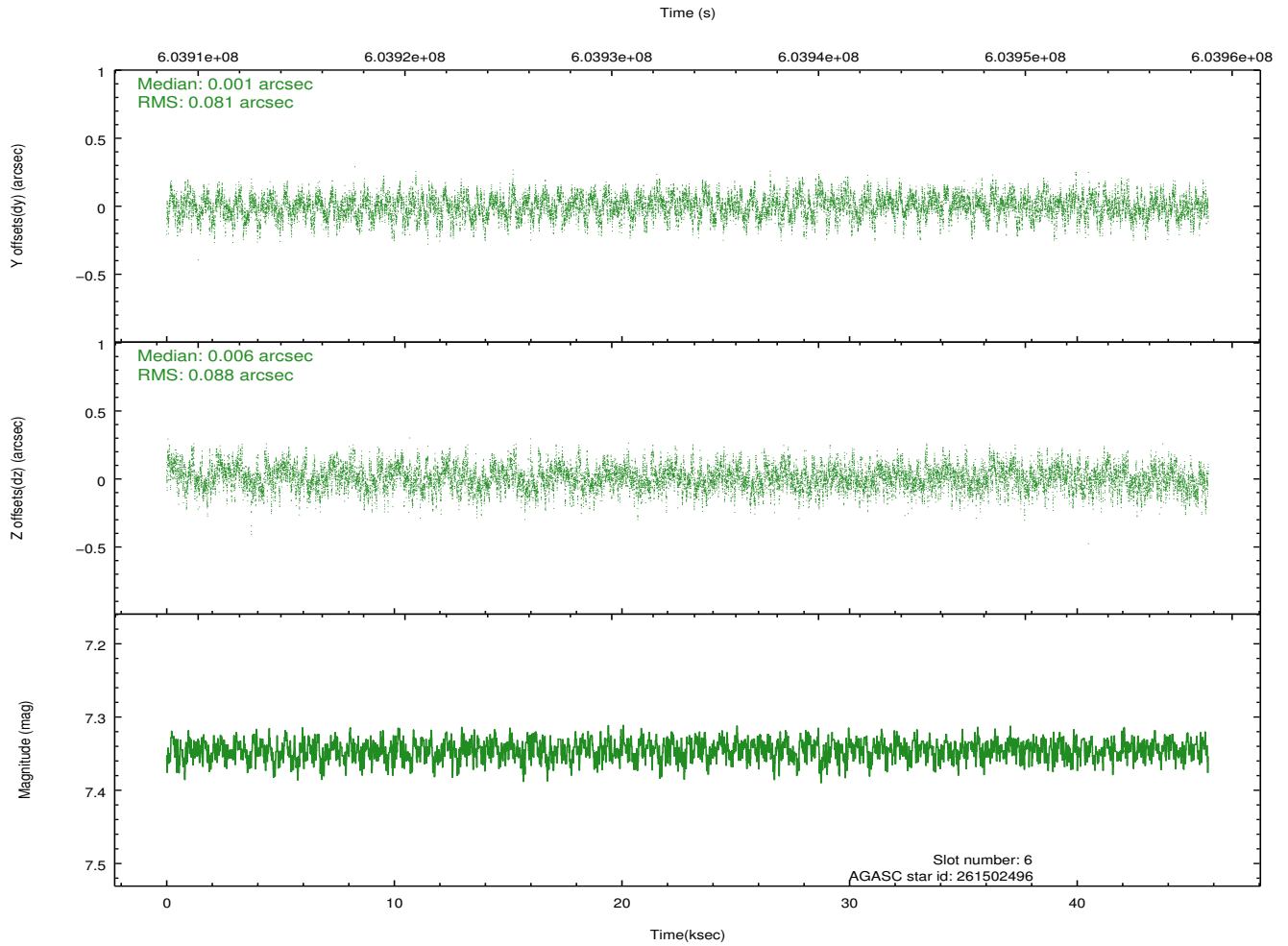
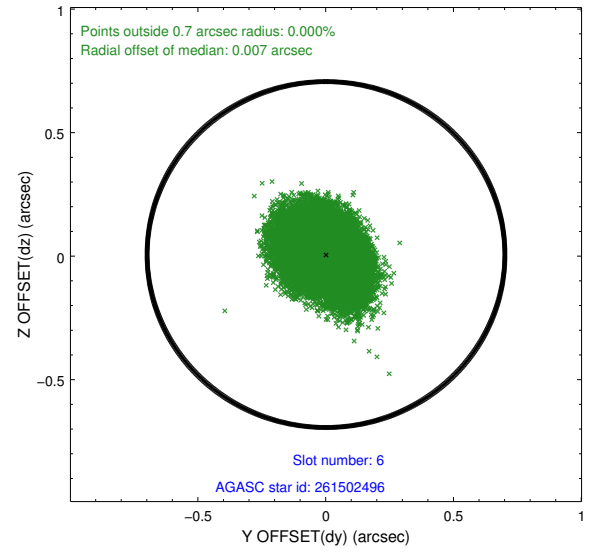
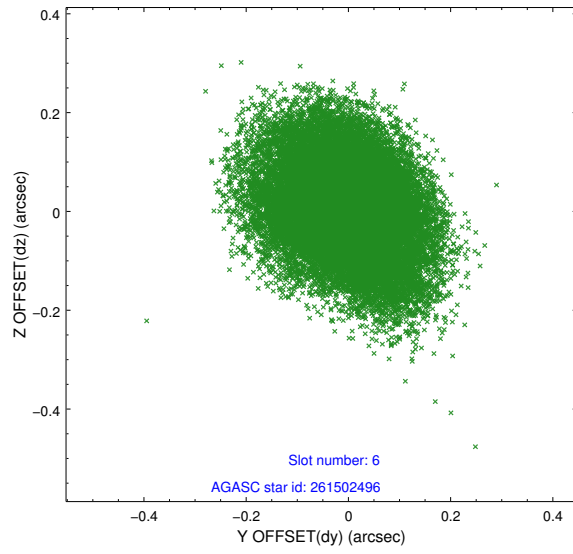
2.4.1 Slot 3



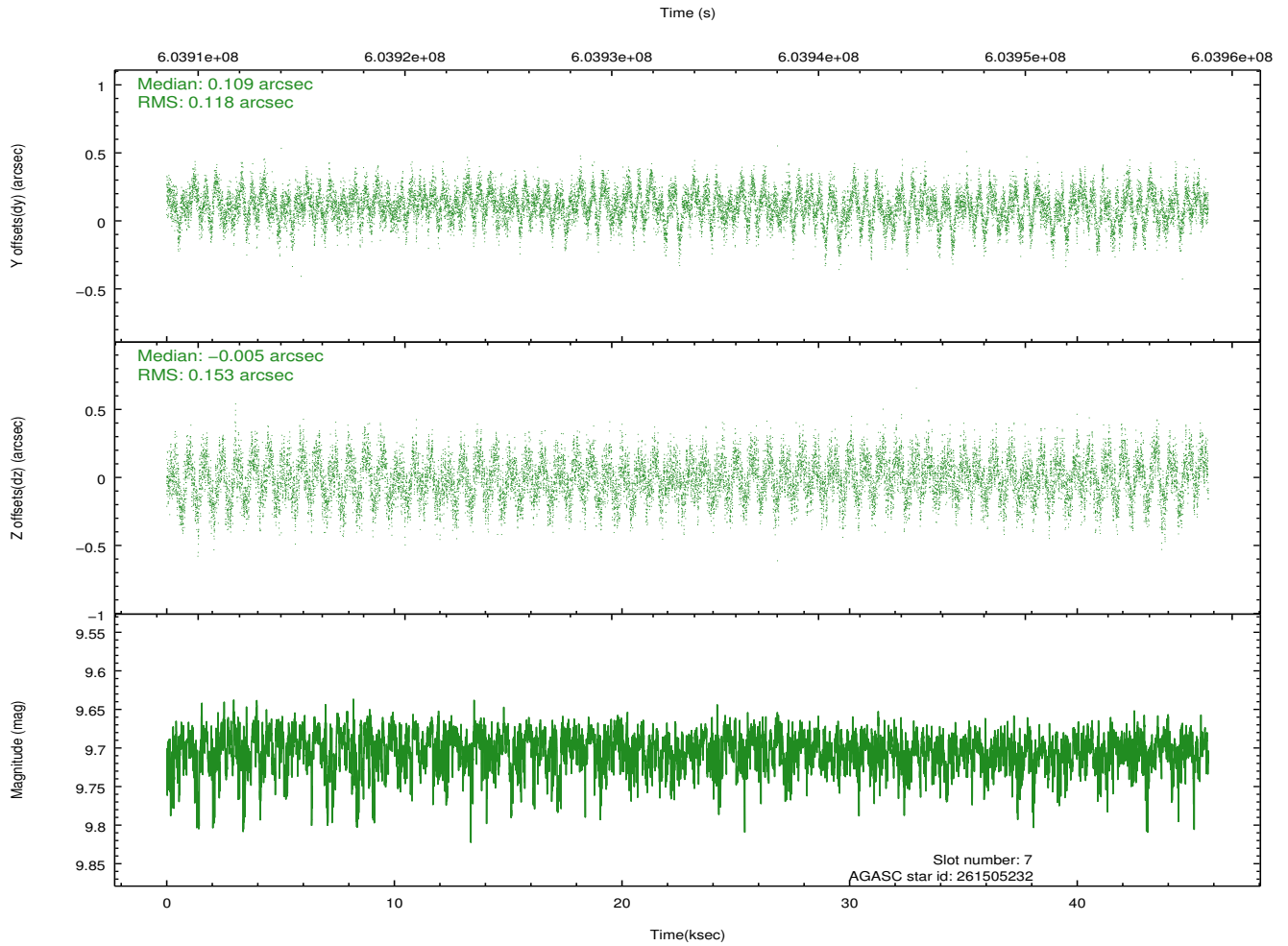
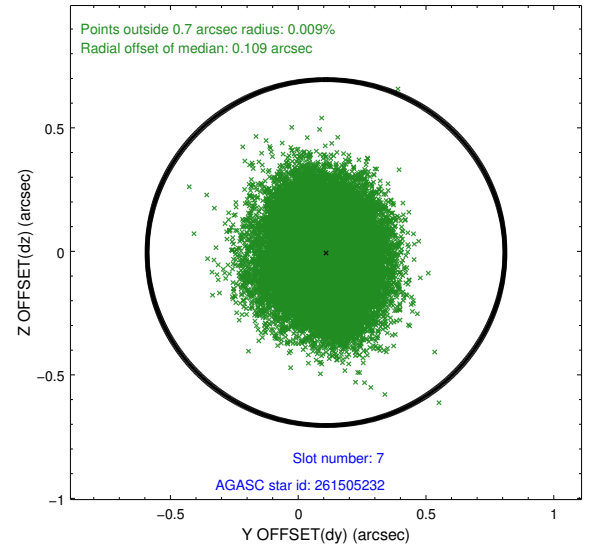
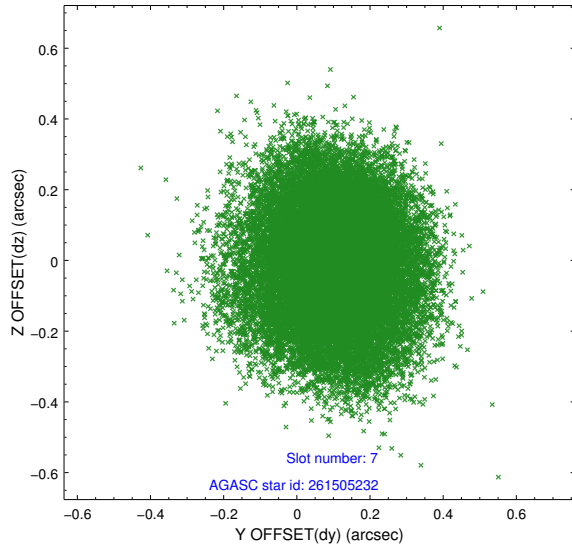
2.4.2 Slot 4



2.4.3 Slot 6

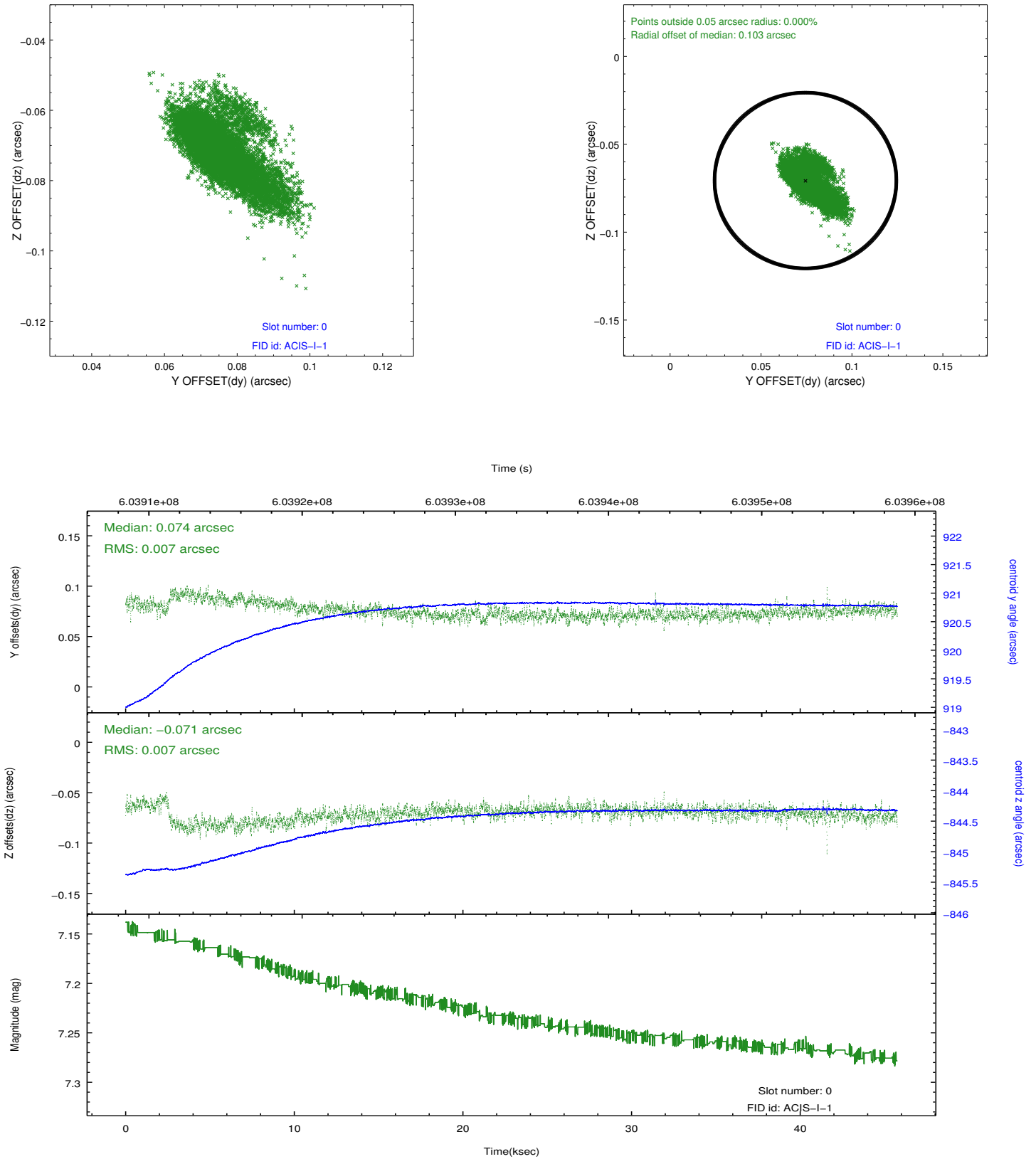


2.4.4 Slot 7

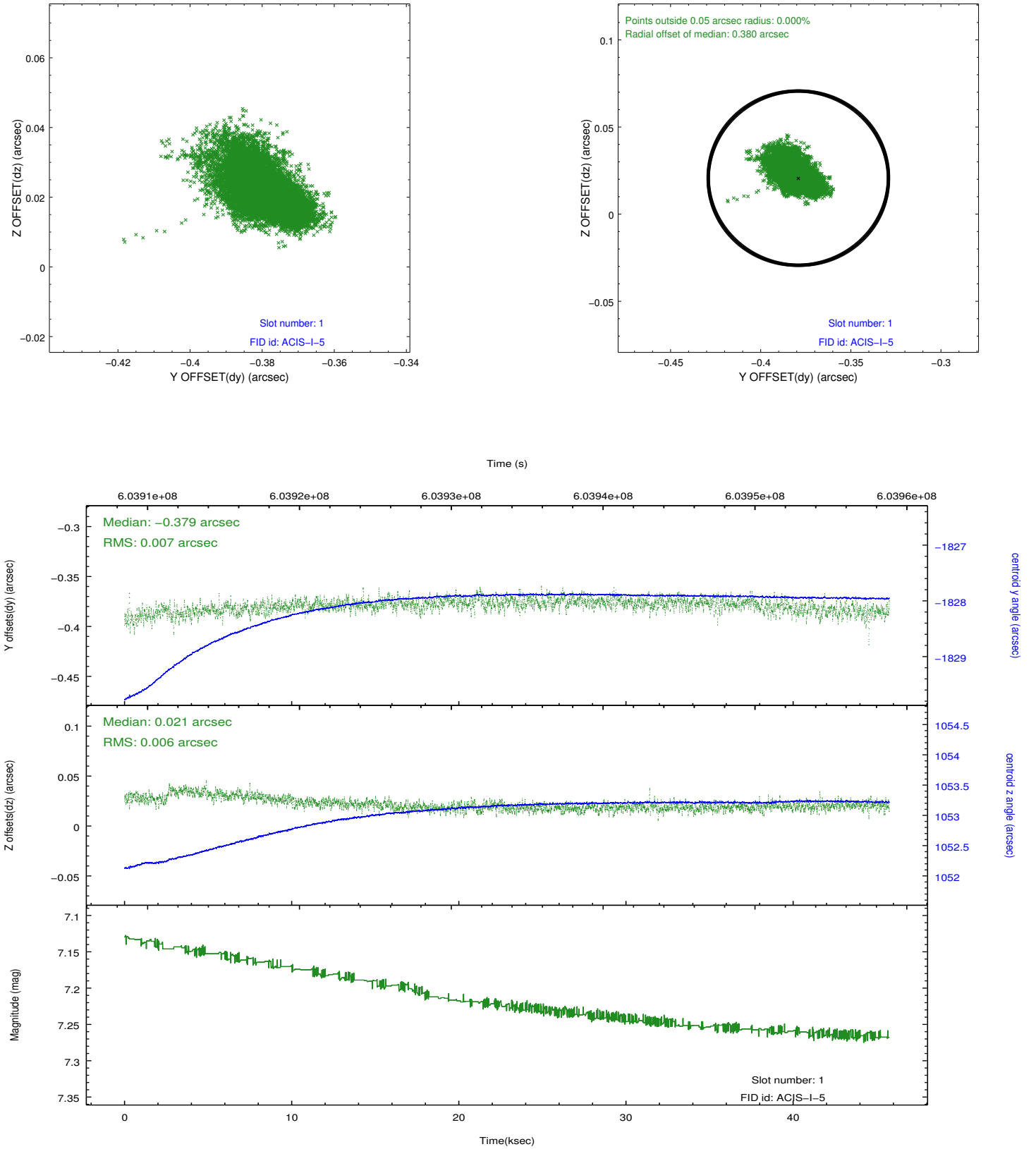


2.5 FID Slots

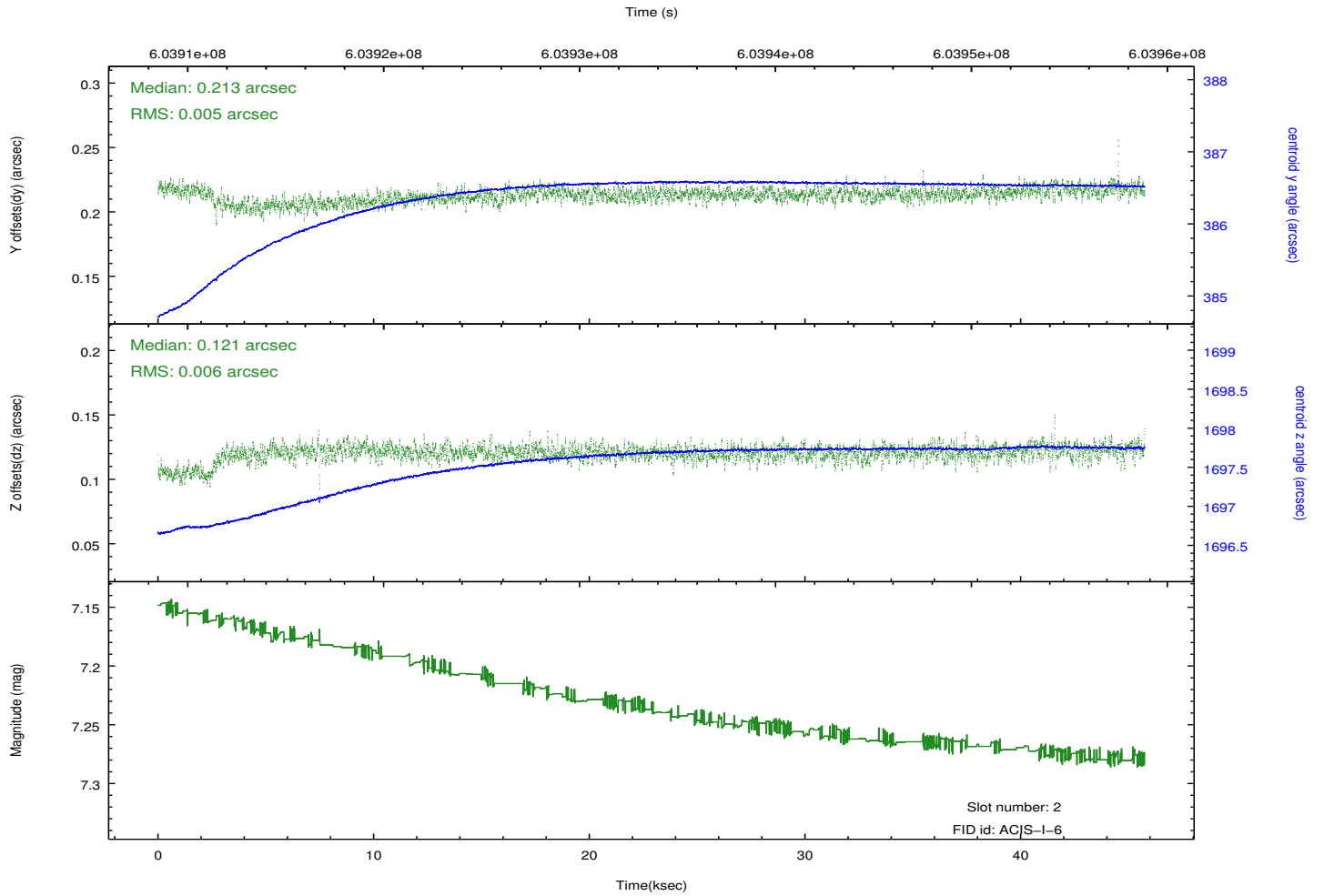
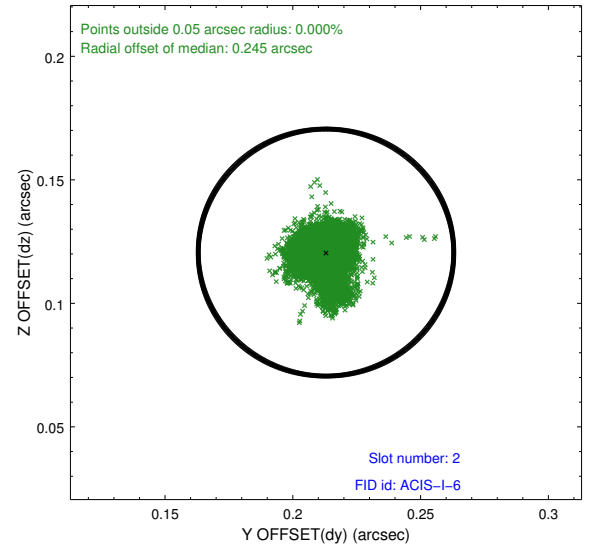
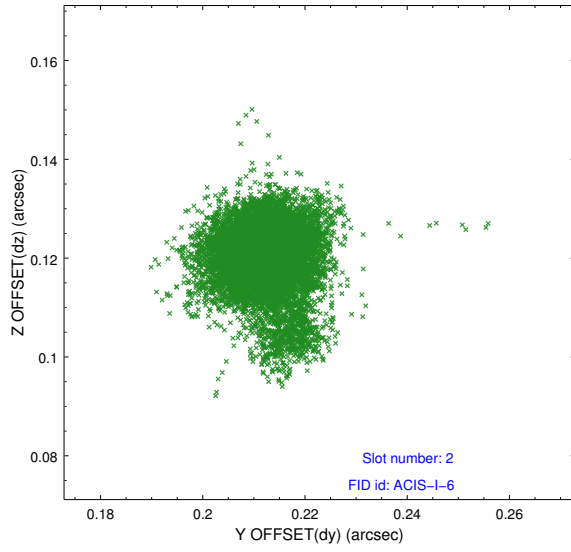
2.5.1 Slot 0



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)	2017.02.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	45.073959276557

A.2 Comments

The guide star in slot 5 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this slot from the solution.