

V&V Reference Report

L2 ASCDS Version : 8.4.4

Observation 9743 - L2 Version 3
Chandra X-Ray Center

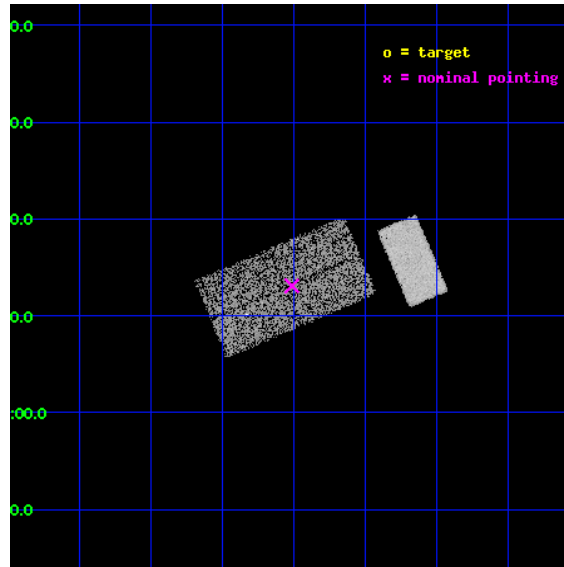
L2 Processing Date : May 4 2012

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1 Front

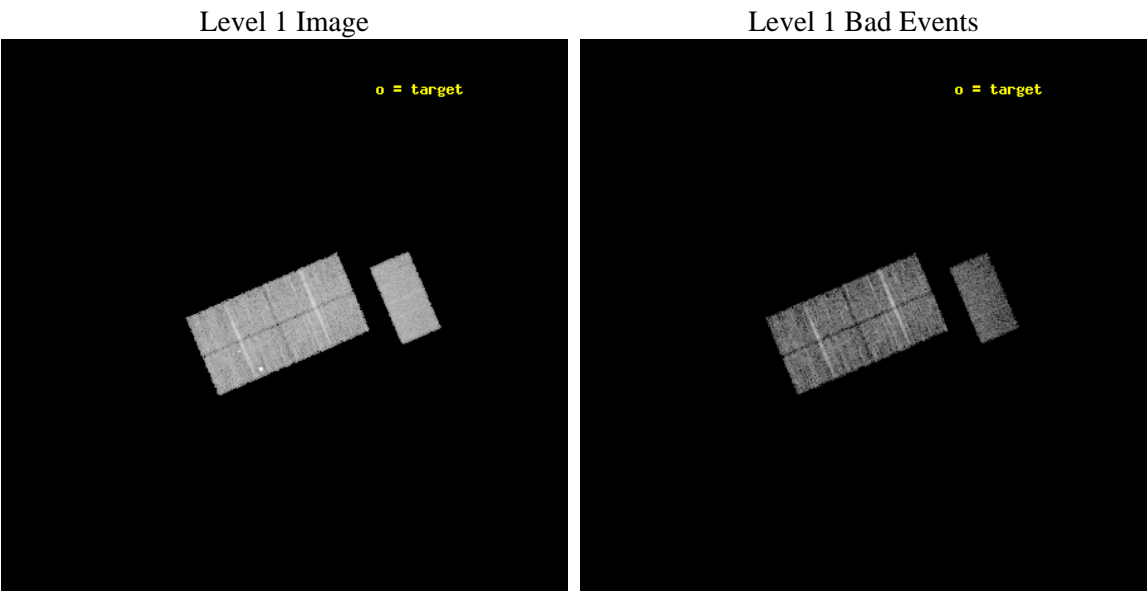
seq_num	100069	Sequence number
obs_id	9743	Observation id
title	Solar wind charge exchange induced X-rays at Venus during the Messenger flyby	Proposal title
observer	Dr. Konrad Dennerl	Principal investigator
object	Venus	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	168.733292	Observer's specified target RA [deg]
dec_targ	4.922889	Observer's specified target Dec [deg]
ra_nom	170.75356604731	Nominal RA [deg]
dec_nom	4.2182799902836	Nominal Dec [deg]
roll_nom	66.8737254429	Nominal Roll [deg]
revision	3	Processing version of data
ontime	6784.2000448704	Sum of GTIs [s]
livetime	6632.9683661228	Livetime [s]
ontime0	6784.2000448704	Sum of GTIs [s]
ontime1	6784.2000448704	Sum of GTIs [s]
ontime2	6784.2000448704	Sum of GTIs [s]
ontime3	6784.2000448704	Sum of GTIs [s]
ontime7	6784.2000448704	Sum of GTIs [s]
l2events	24018	Number of level 2 events



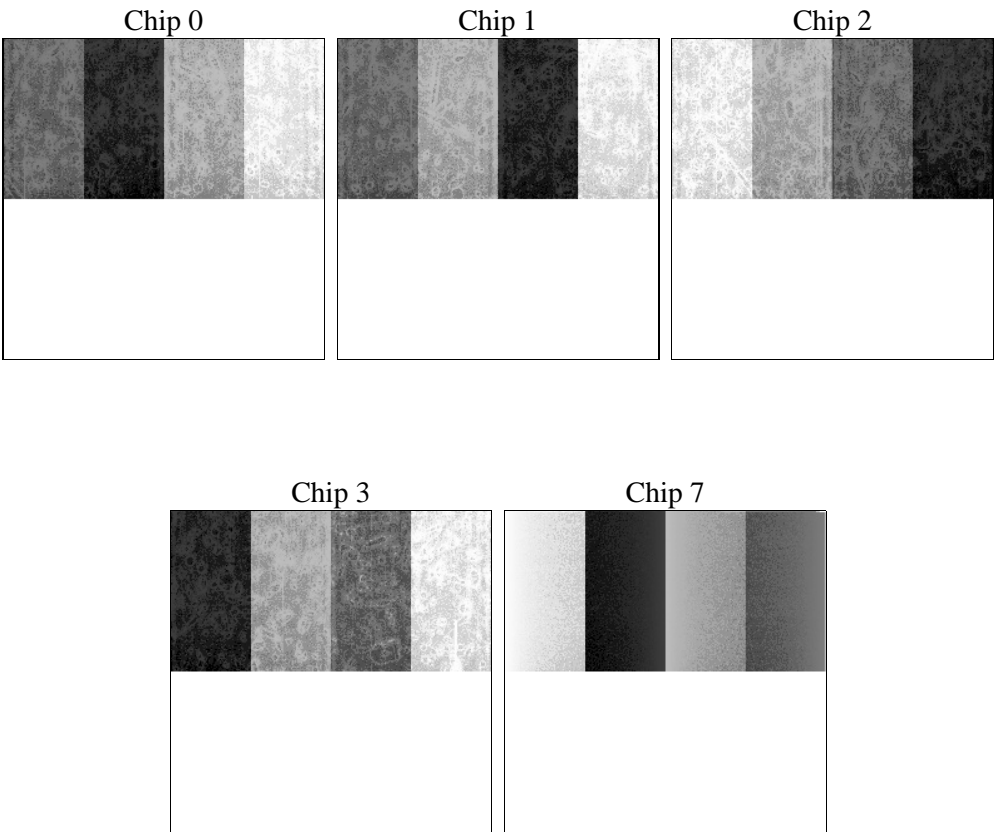
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



Chip 3



Chip 7



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6600.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	6784.2000448704	Sum of GTIs [s]
caldsver	4.4.9	 	ontime0	6784.2000448704	Sum of GTIs [s]
date	2012-05-04T16:14:11	Date and time of file creation	ontime1	6784.2000448704	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	6784.2000448704	Sum of GTIs [s]
			ontime3	6784.2000448704	Sum of GTIs [s]
			ontime7	6784.2000448704	Sum of GTIs [s]
			l1events	160584	Number of level 1 events

2.1.4 Events

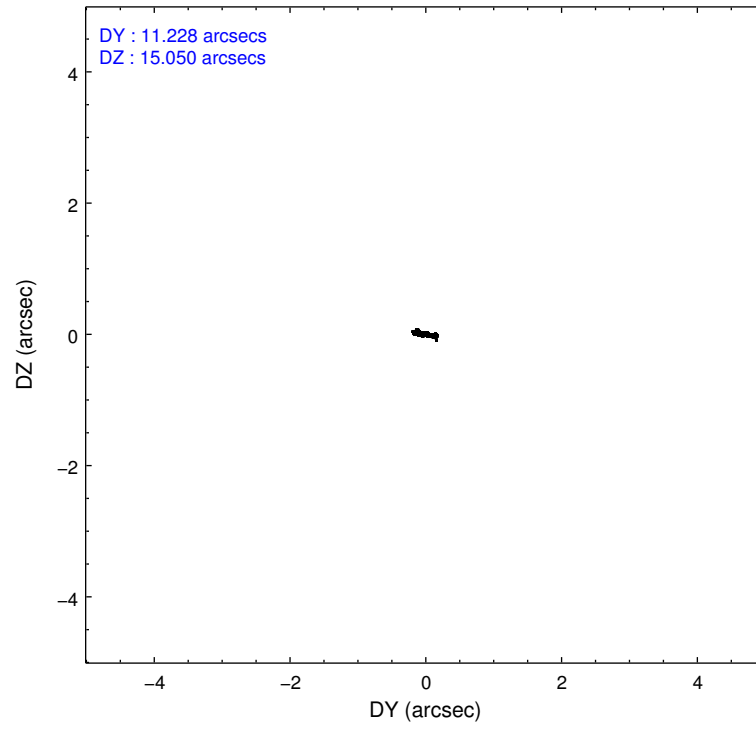
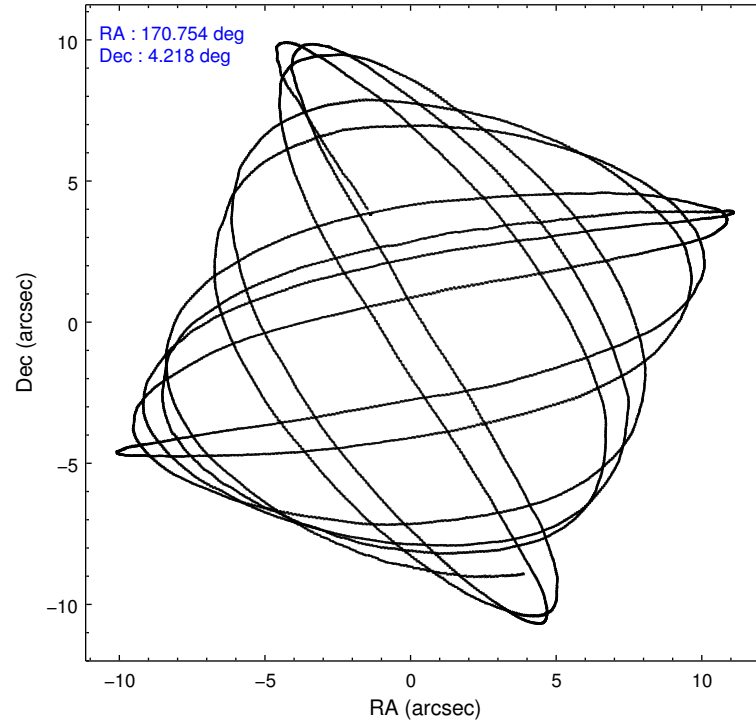
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
level 1 events	29833	31866	32446	32357	34082
rejected events	26959	27189	29447	29505	19196
rejected %	90%	85%	90%	91%	56%

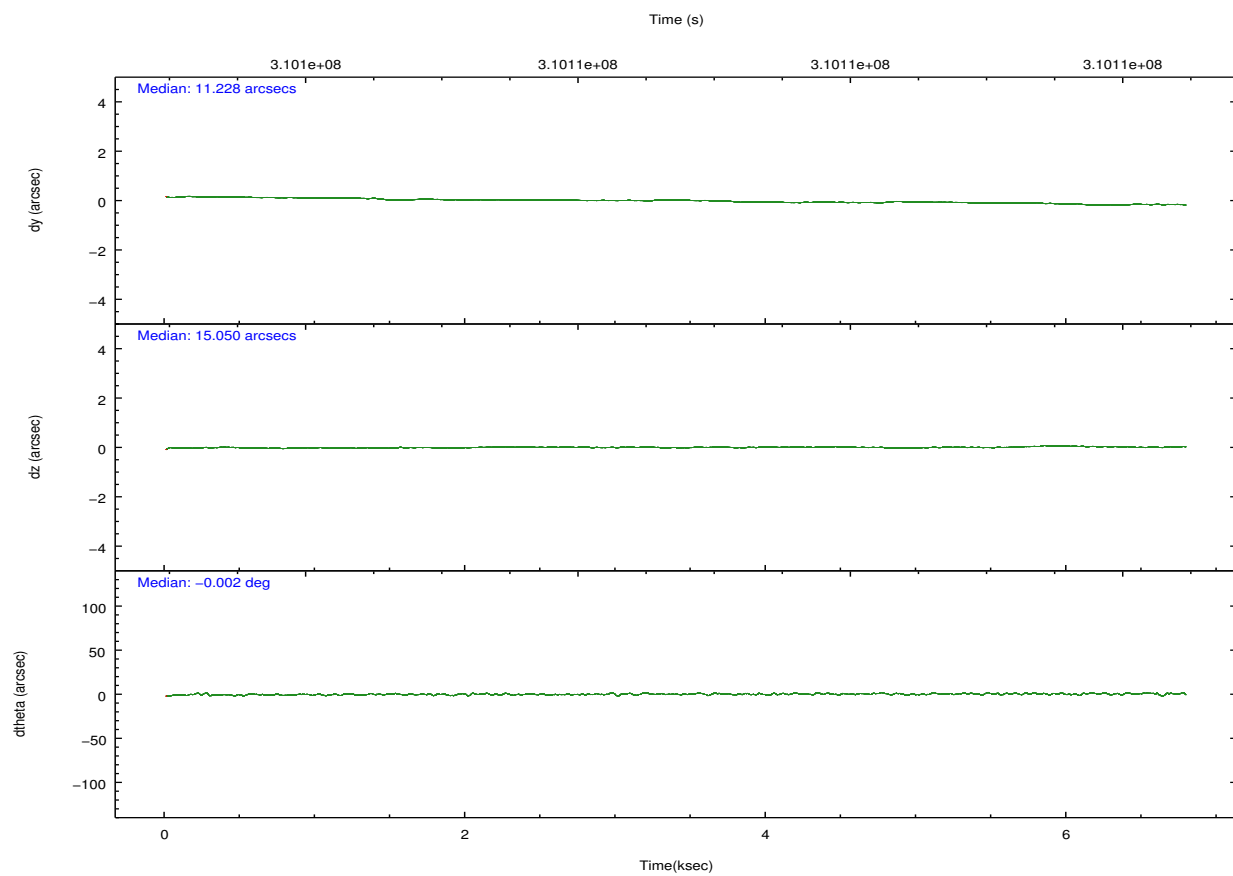
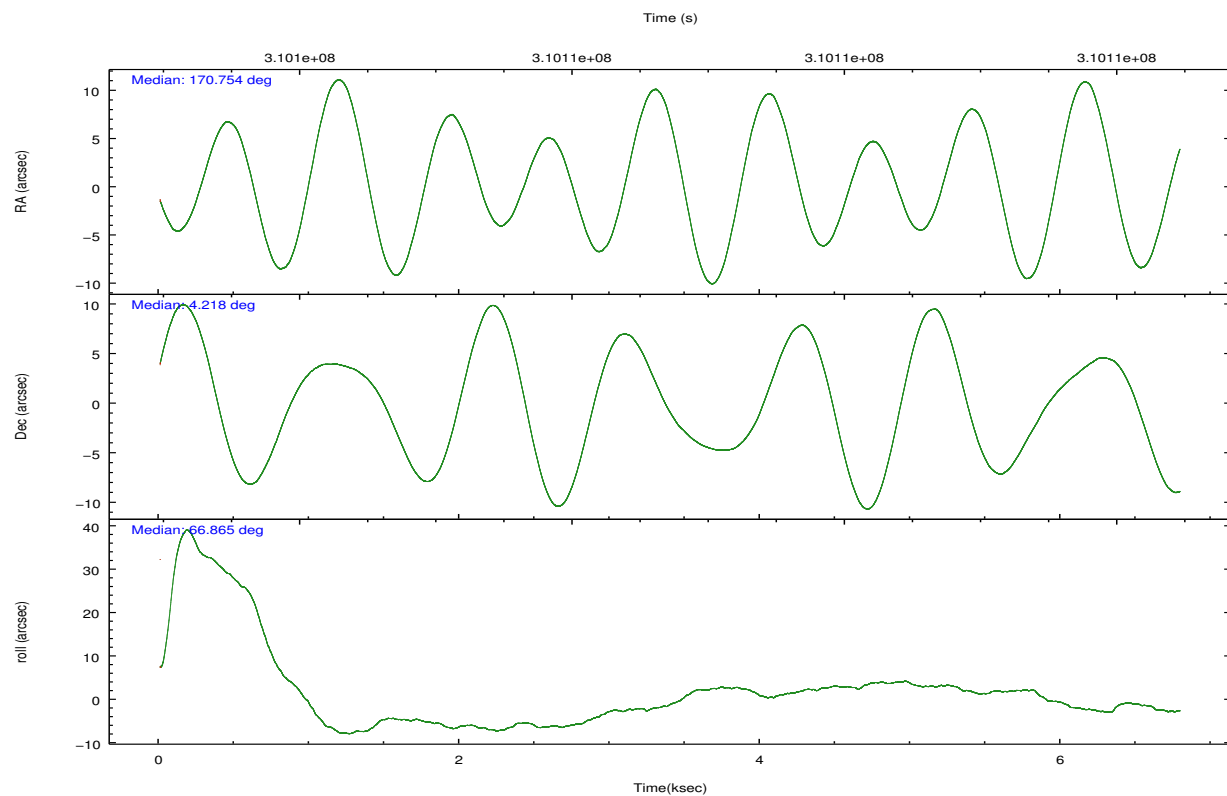
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 7
grade 0 events	991	2763	1109	937	1593
	3%	8%	3%	2%	4%
grade 1 events	25	21	22	16	48
	0%	0%	0%	0%	0%
grade 2 events	752	696	618	620	3250
	2%	2%	1%	1%	9%
grade 3 events	408	402	412	430	1586
	1%	1%	1%	1%	4%
grade 4 events	342	391	411	420	1539
	1%	1%	1%	1%	4%
grade 5 events	1074	1155	1027	1327	3662
	3%	3%	3%	4%	10%
grade 6 events	527	634	560	572	7683
	1%	1%	1%	1%	22%
grade 7 events	25714	25804	28287	28035	14721
	86%	80%	87%	86%	43%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01237	ACIS-01237	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	170.757021	170.7535660473134	CCD I2 on	Y	Y
[deg] Pointing Dec	4.190948	4.218279990283635	CCD I3 on	Y	Y
[deg] Pointing Roll	66.664846	66.8737254428998	CCD S0 on	N	N
[s] Window start time (MET)	309398465.184000	309398465.184000	CCD S1 on	N	N
[s] Window stop time (MET)	310608065.184000	310608065.184000	CCD S2 on	O1	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S3 on	O2	Y
[mm] SIM defocus	0	0.001439871863259334	CCD S4 on	N	N
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S5 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	Number of optional ACIS chips dropped	1	1
[s] Observation start time (MET)	310103529.184000	310103152.94051	On-chip summing requested	N	N
Observation start date	2007-10-30T03:51:04	2007-10-30T03:45:52	Subarray requested	CUSTOM	1/2
[s] Observation end time (MET)	310110129.184000	310110262.85336	Subarray start row	513	513
Observation end date	2007-10-30T05:41:04	2007-10-30T05:44:22	Subarray row count	512	512
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	1.8

2.3 Aspect



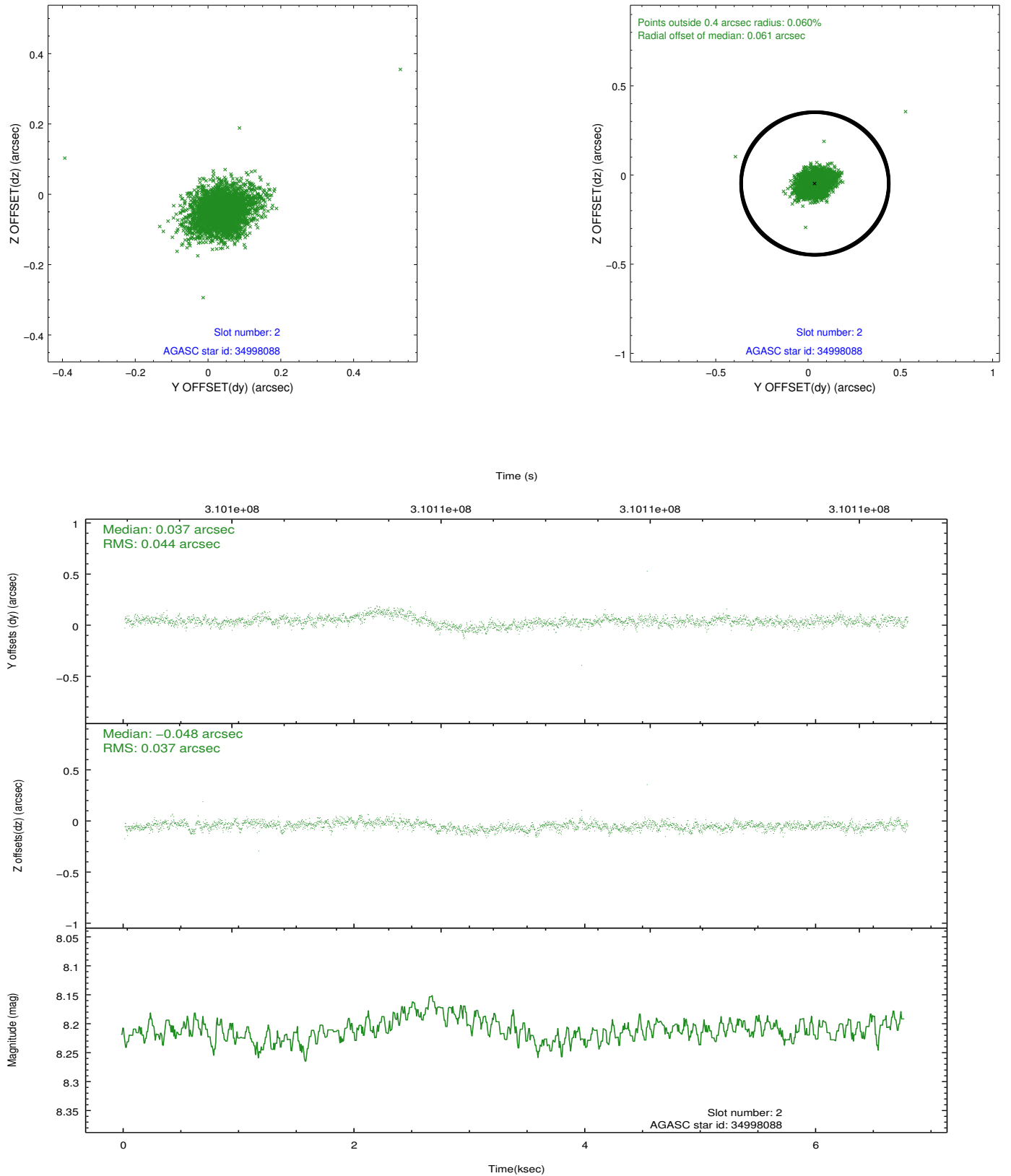


Slot Statistics

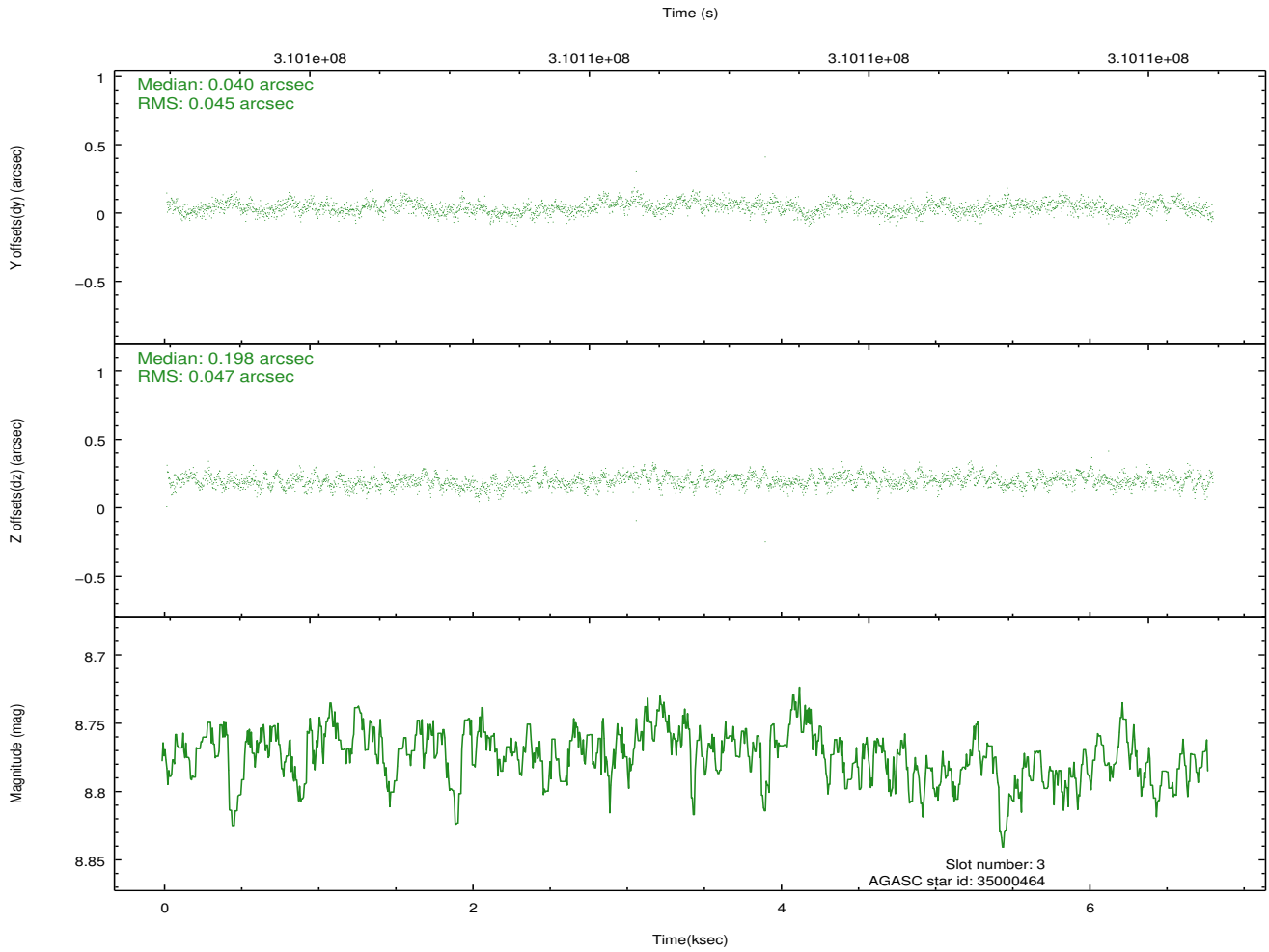
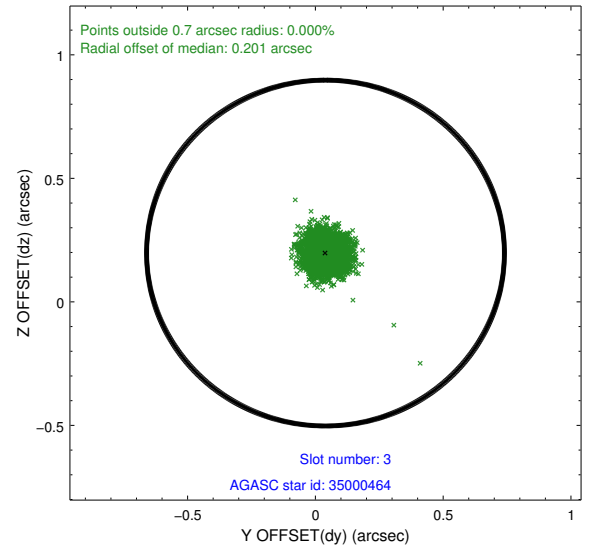
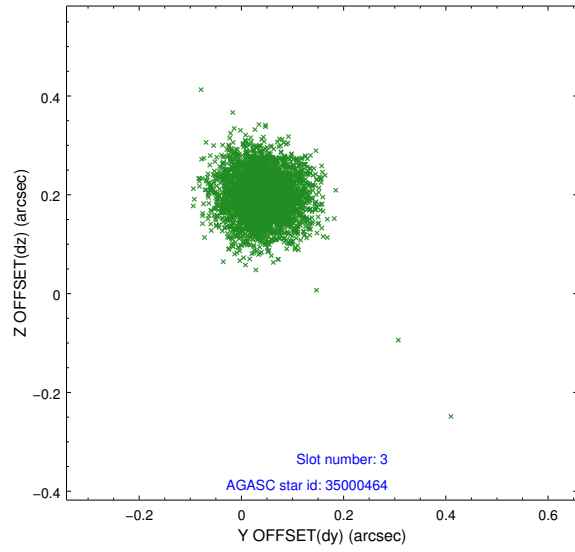
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.13	1655	0.011	-0.054	0.008	0.015	0.000000	0.000000	-765.81	-845.07
1	FID	ACIS-I-5	7.23	1656	-0.074	0.102	0.008	0.015	0.000000	0.000000	-1820.39	1058.49
2	GUIDE	34998088	8.21	3310	0.037	-0.048	0.057	0.102	170.391115	4.208300	-463.12	1231.64
3	GUIDE	35000464	8.77	3310	0.040	0.198	0.069	0.109	170.965623	3.618933	-1594.85	-1502.95
4	GUIDE	35000776	7.21	3310	-0.077	-0.149	0.046	0.075	170.371940	3.937464	-1386.01	907.92
5	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
7	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

2.4 Star Slots

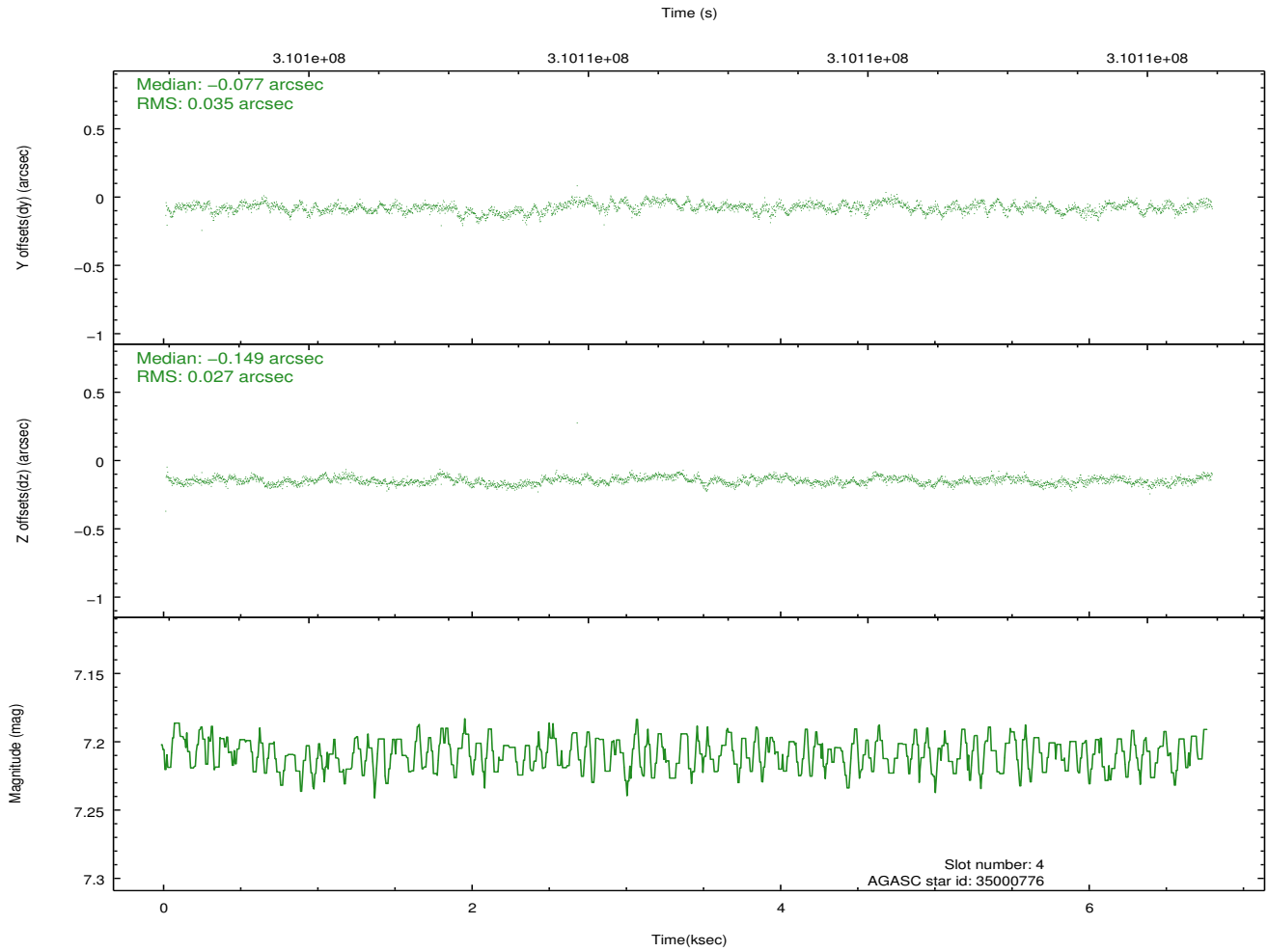
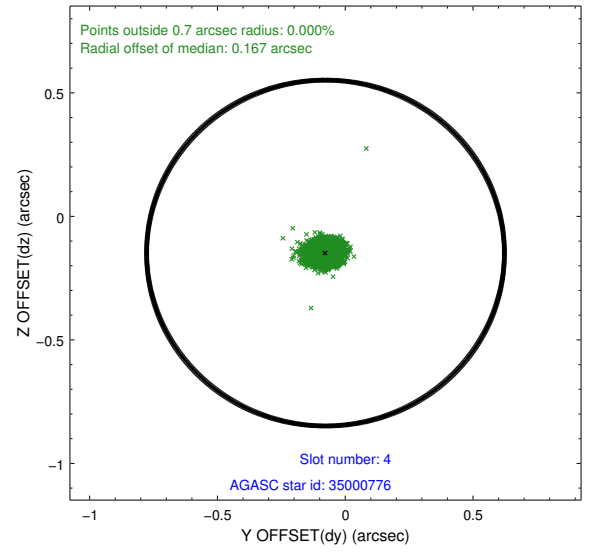
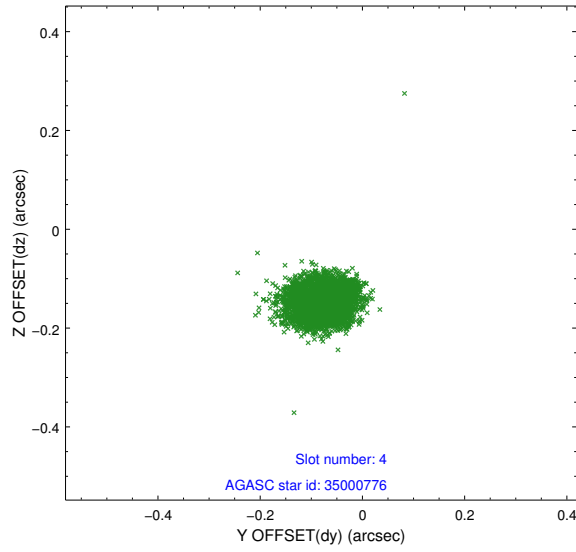
2.4.1 Slot 2



2.4.2 Slot 3

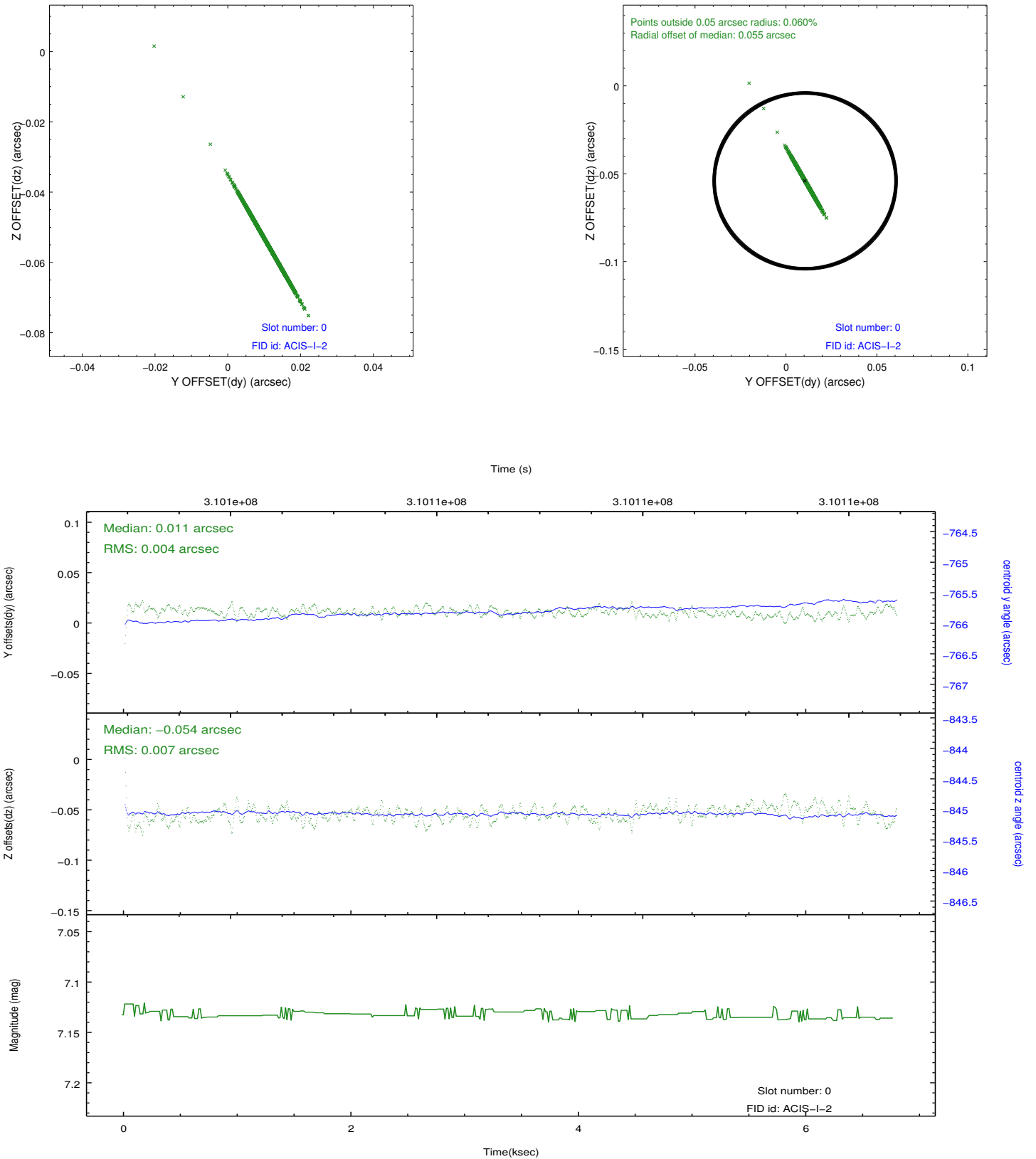


2.4.3 Slot 4

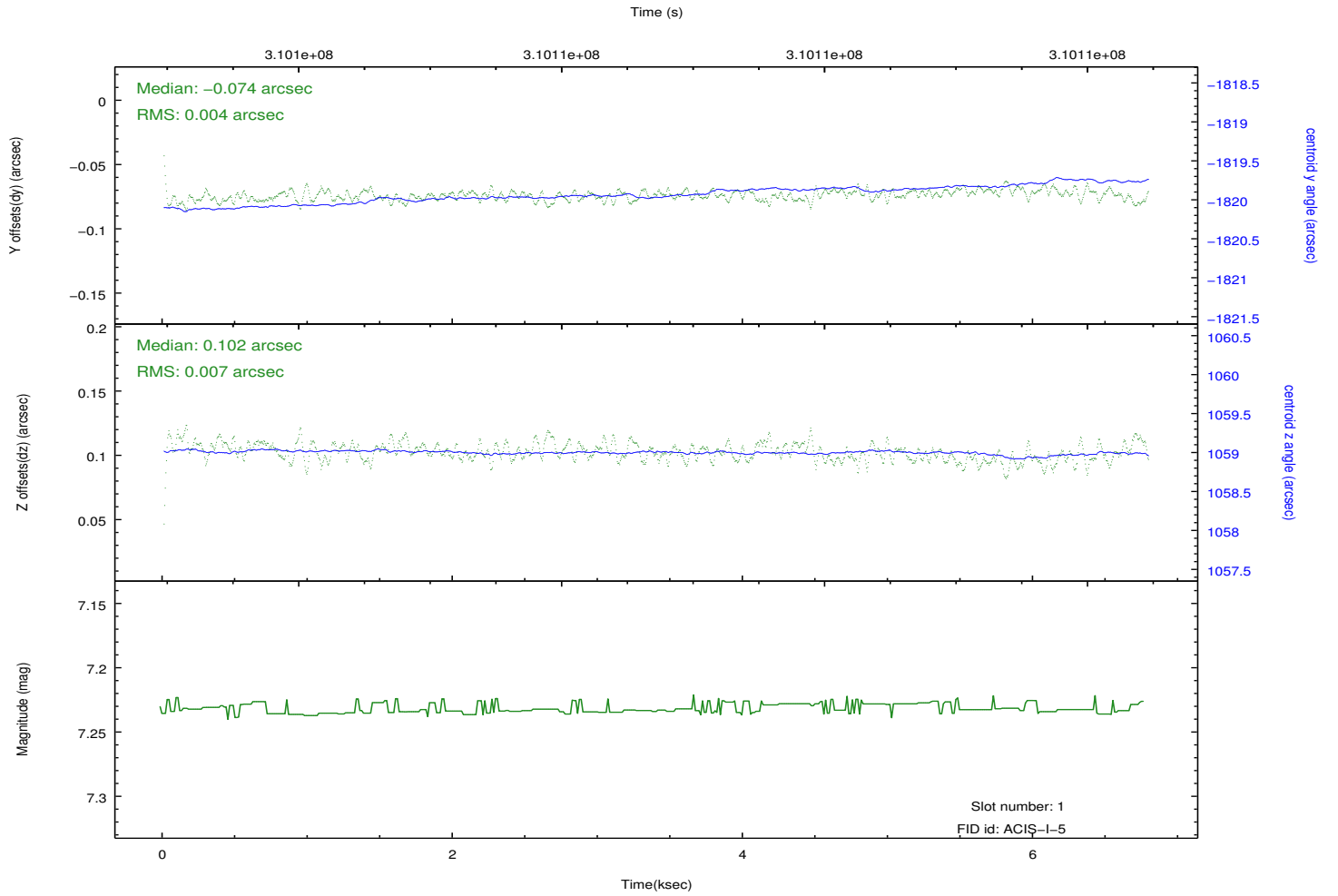
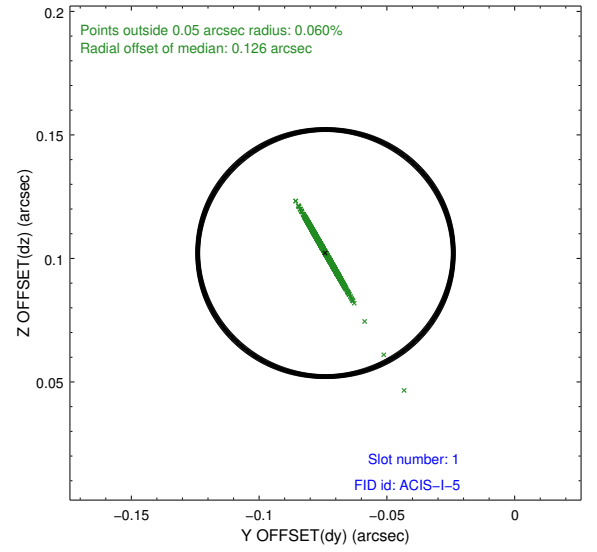
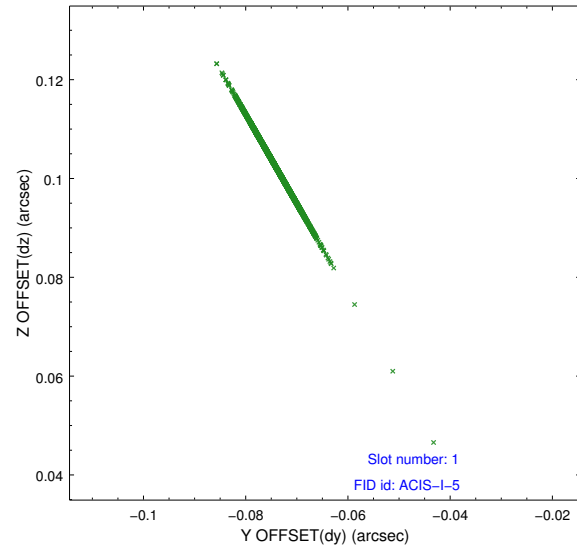


2.5 FID Slots

2.5.1 Slot 0



2.5.2 Slot 1



A Summary

A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.05.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.78420004

A.2 Comments

The guide stars in slots 5 and 6 were removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this guide star from the solution. Also, slot 7 was not utilized in this observation. Optional chip S2 dropped. Window constraint met.