

V&V Reference Report

L2 ASCDS Version : 8.5

Observation 3182 - L2 Version 5
Chandra X-Ray Center

L2 Processing Date : Dec 11 2012

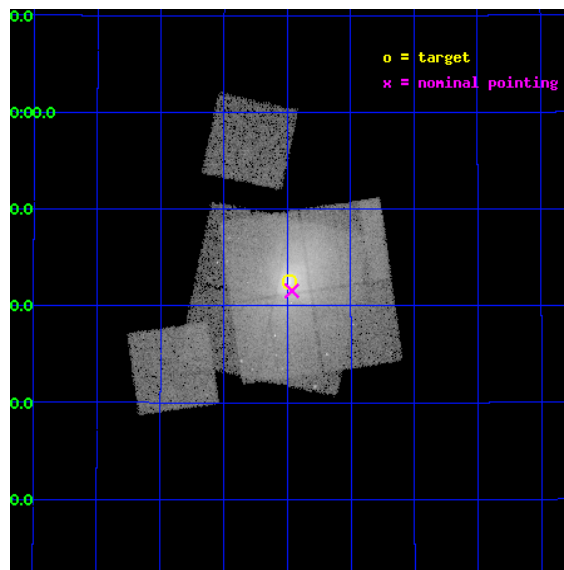
Contents

1	Front	3
2	OBI	4
2.1	OBI	4
2.1.1	Images	4
2.1.2	Bias	4
2.1.3	Parameters	5
2.1.4	Events	5
2.2	Compared Parameters	6
2.3	Aspect	7
2.4	Star Slots	10
2.4.1	Slot 3	10
2.4.2	Slot 4	11
2.4.3	Slot 5	12
2.4.4	Slot 6	13
2.4.5	Slot 7	14
2.5	FID Slots	15
2.5.1	Slot 0	15
2.5.2	Slot 1	16
2.5.3	Slot 2	17
3	OBI	18
3.1	OBI	18
3.1.1	Images	18
3.1.2	Bias	18
3.1.3	Parameters	19
3.1.4	Events	19
3.2	Compared Parameters	20
3.3	Aspect	21
3.4	Star Slots	24
3.4.1	Slot 3	24
3.4.2	Slot 4	25
3.4.3	Slot 5	26
3.4.4	Slot 6	27

3.4.5	Slot 7	28
3.5	FID Slots	29
3.5.1	Slot 0	29
3.5.2	Slot 1	30
3.5.3	Slot 2	31
A	Summary	32
A.1	Status	32
A.2	Comments	32

1 Front

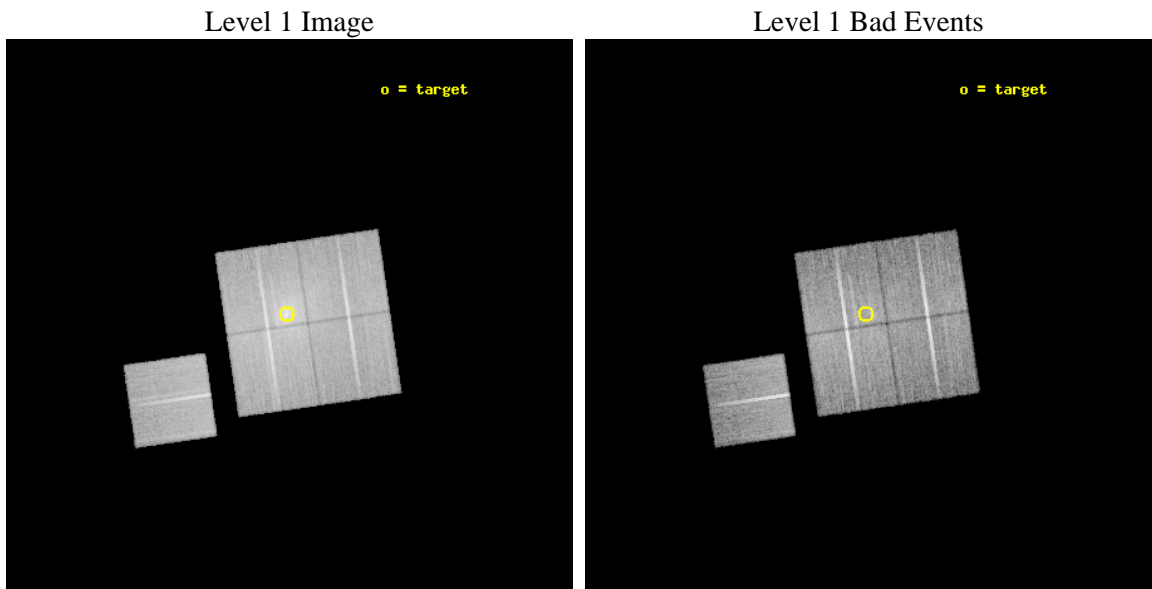
seq_num	800182	Sequence number
obs_id	3182	Observation id
title	MERGER SHOCKS IN CLUSTERS OF GALAXIES	Proposal title
observer	Dr. CRAIG SARAZIN	Principal investigator
object	A2065	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	230.6208	Observer's specified target RA [deg]
dec_targ	27.7083	Observer's specified target Dec [deg]
ra_nom	230.61611997136	Nominal RA [deg]
dec_nom	27.69277178297	Nominal Dec [deg]
roll_nom	261.67899061293	Nominal Roll [deg]
revision	5	Processing version of data
ontime	50089.758933365	Sum of GTIs [s]
livetime	49435.299357357	Livetime [s]
ontime0	50086.617953271	Sum of GTIs [s]
ontime1	50086.617983192	Sum of GTIs [s]
ontime2	50092.899903625	Sum of GTIs [s]
ontime3	50089.758933365	Sum of GTIs [s]
ontime6	50089.758933365	Sum of GTIs [s]
l2events	290632	Number of level 2 events



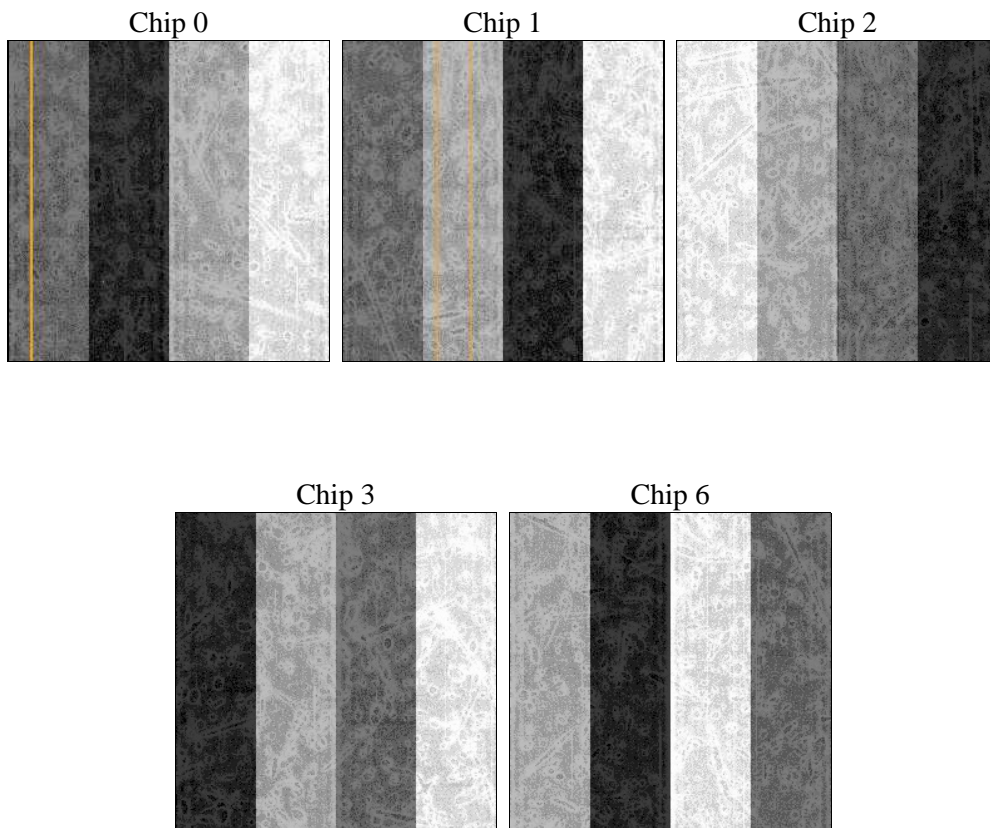
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	50000.000000	[s] Scheduled observation exposure time
ascdsver	8.5	Processing system revision	ontime	28045.65897578	Sum of GTIs [s]
caldsver	4.5.4	 	ontime0	28045.658985823	Sum of GTIs [s]
date	2012-12-11T11:19:43	Date and time of file creation	ontime1	28045.658985823	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	28048.79994604	Sum of GTIs [s]
			ontime3	28045.65897578	Sum of GTIs [s]
			ontime6	28048.79994604	Sum of GTIs [s]
			l1events	946283	Number of level 1 events

2.1.4 Events

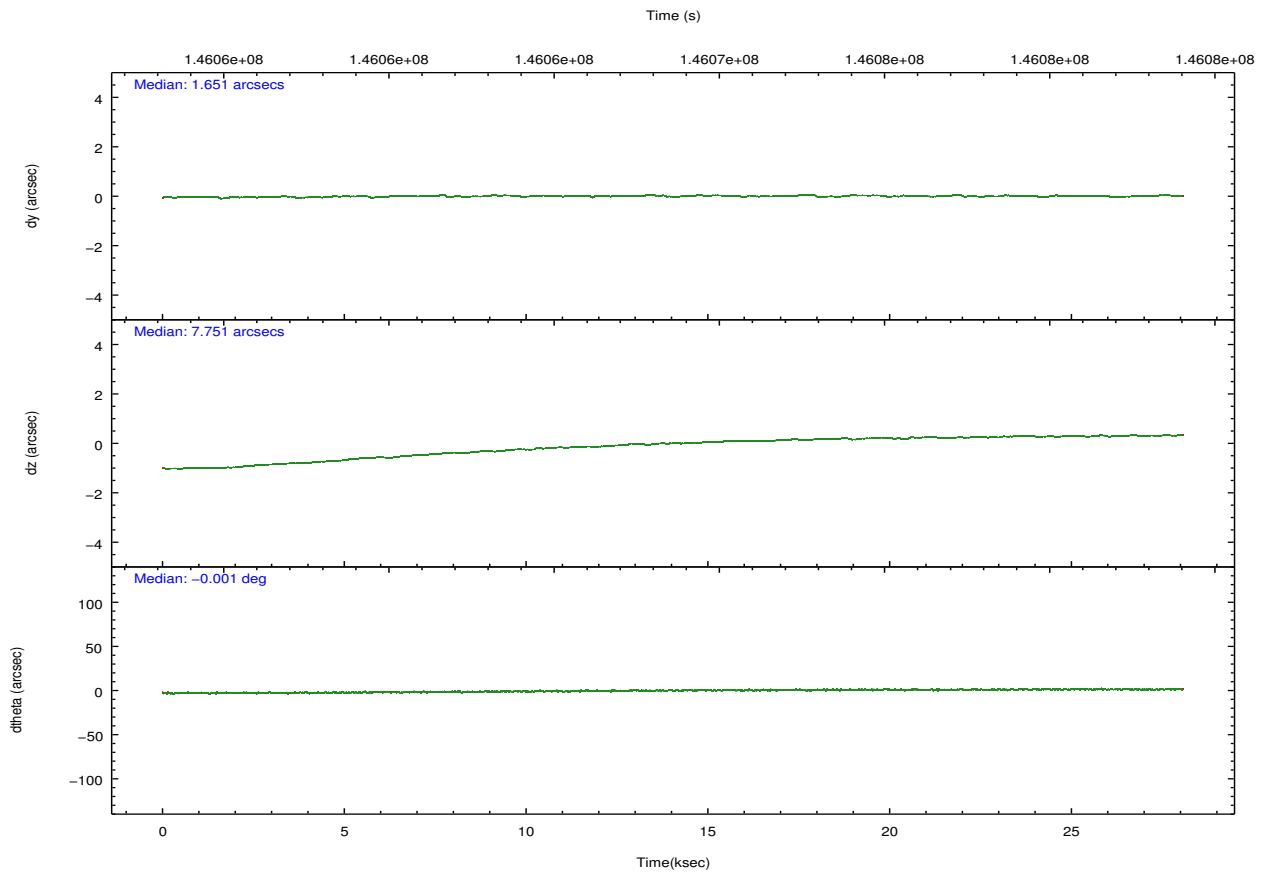
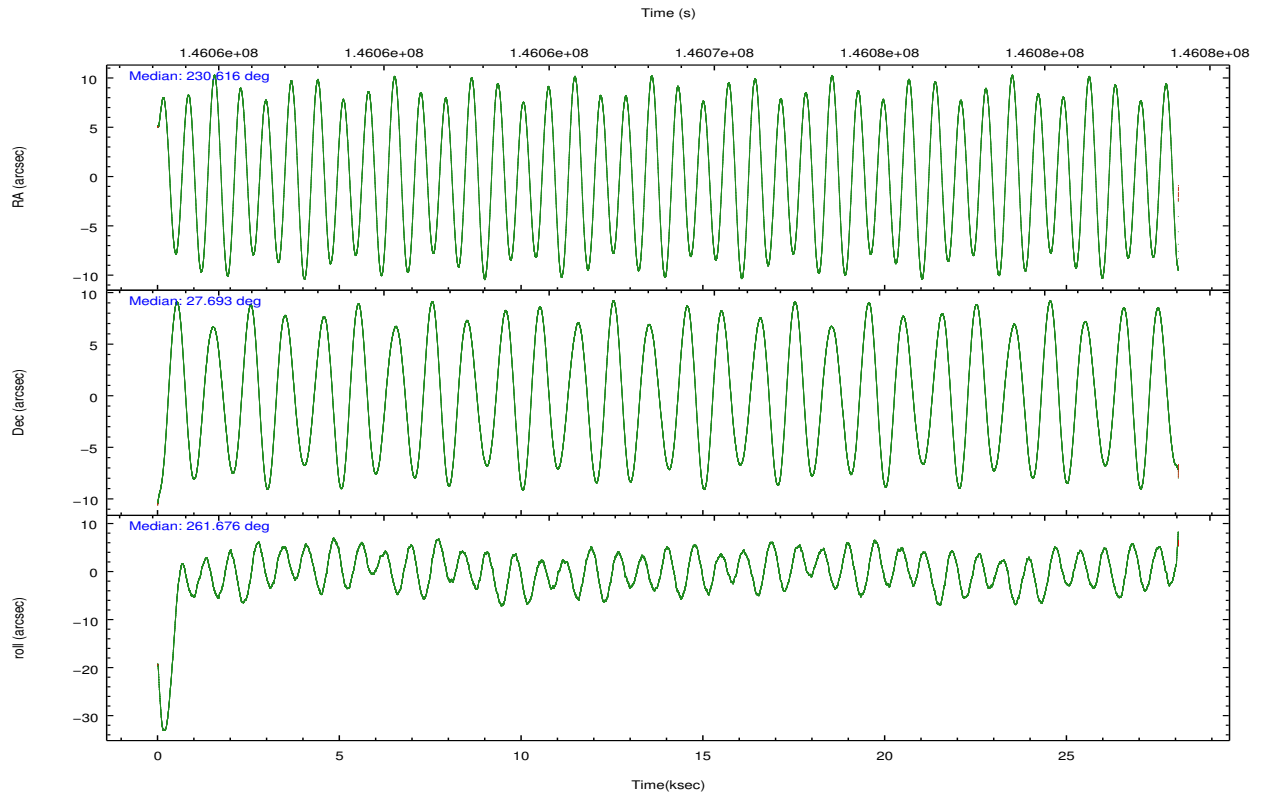
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	159770	179791	205929	225479	175314
rejected events	133902	138512	163096	157057	152977
rejected %	83%	77%	79%	69%	87%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	13850	24622	27085	49808	10803
	8%	13%	13%	22%	6%
grade 1 events	130	141	198	308	84
	0%	0%	0%	0%	0%
grade 2 events	5157	6962	7048	8242	4679
	3%	3%	3%	3%	2%
grade 3 events	2015	2687	2435	3179	1818
	1%	1%	1%	1%	1%
grade 4 events	1936	2473	2856	3214	1816
	1%	1%	1%	1%	1%
grade 5 events	4954	5277	4859	5712	5544
	3%	2%	2%	2%	3%
grade 6 events	2941	4586	3456	4063	3256
	1%	2%	1%	1%	1%
grade 7 events	128787	133043	157992	150953	147314
	80%	73%	76%	66%	84%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	230.604579	230.61611997136	Subarray requested	NONE	NONE
[deg] Pointing Dec	27.718204	27.69277178297023	Alternating exposures requested	N	N
[deg] Pointing Roll	261.475660	261.6789906129349	[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	-229.592463	-229.5846445007452			
[mm] SIM translation stage offset	-4	-4.007808502184531			
[s] Observation start time (MET)	146054755.184000	146053762.06852			
Observation start date	2002-08-18T10:44:51	2002-08-18T10:29:22			
[s] Observation end time (MET)	146104755.184000	146082654.25721			
Observation end date	2002-08-19T00:38:11	2002-08-18T18:30:54			
Read mode	TIMED	TIMED			

2.3 Aspect

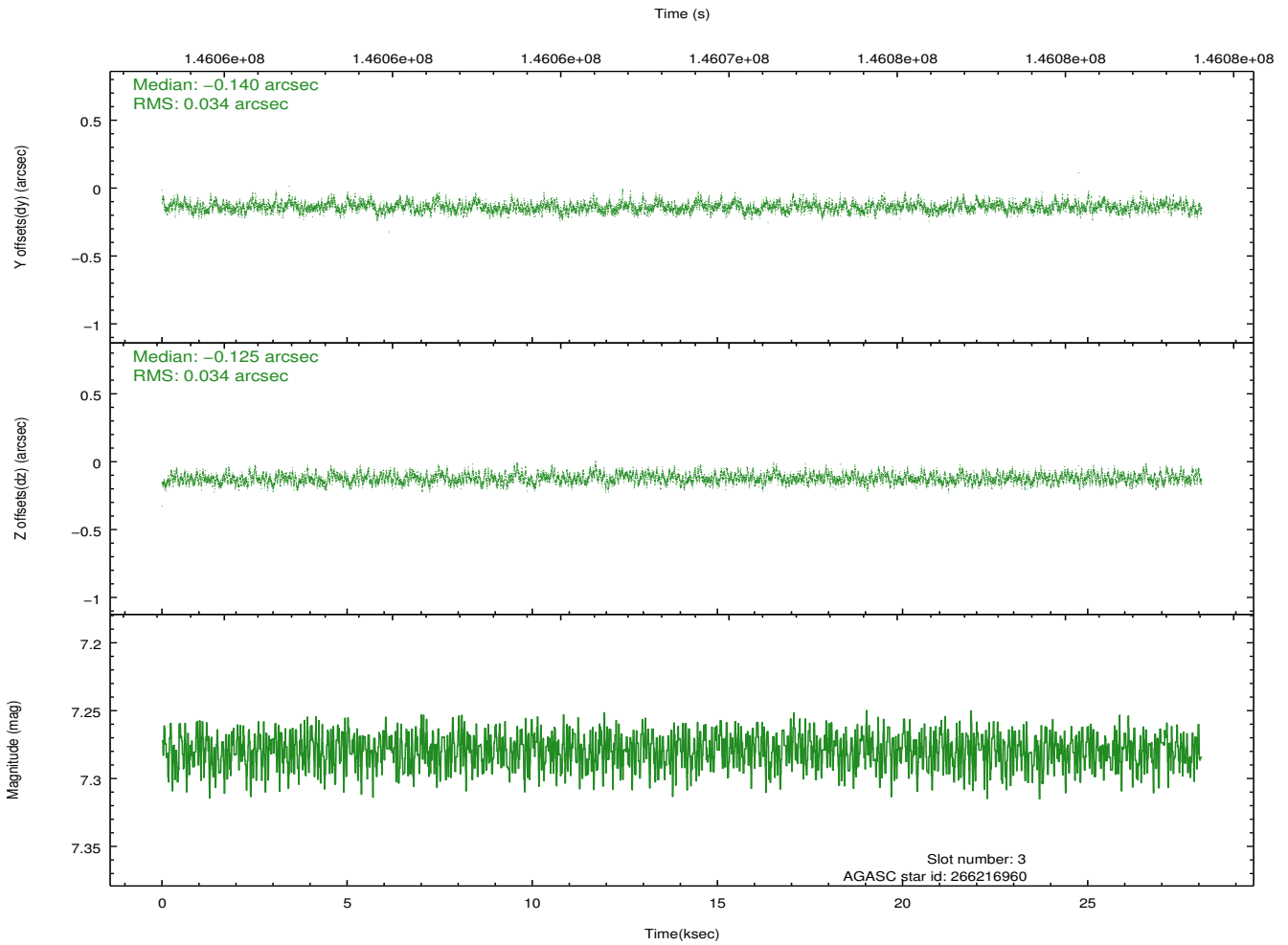
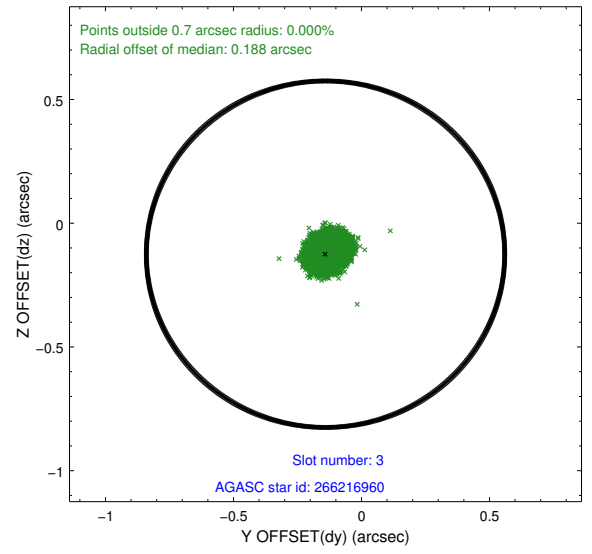
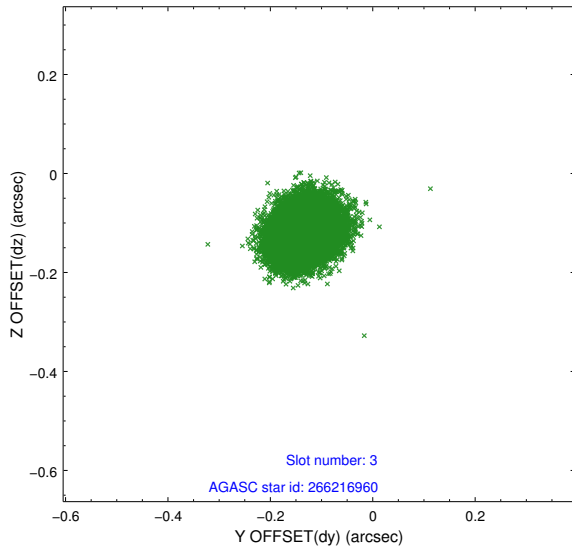


Slot Statistics

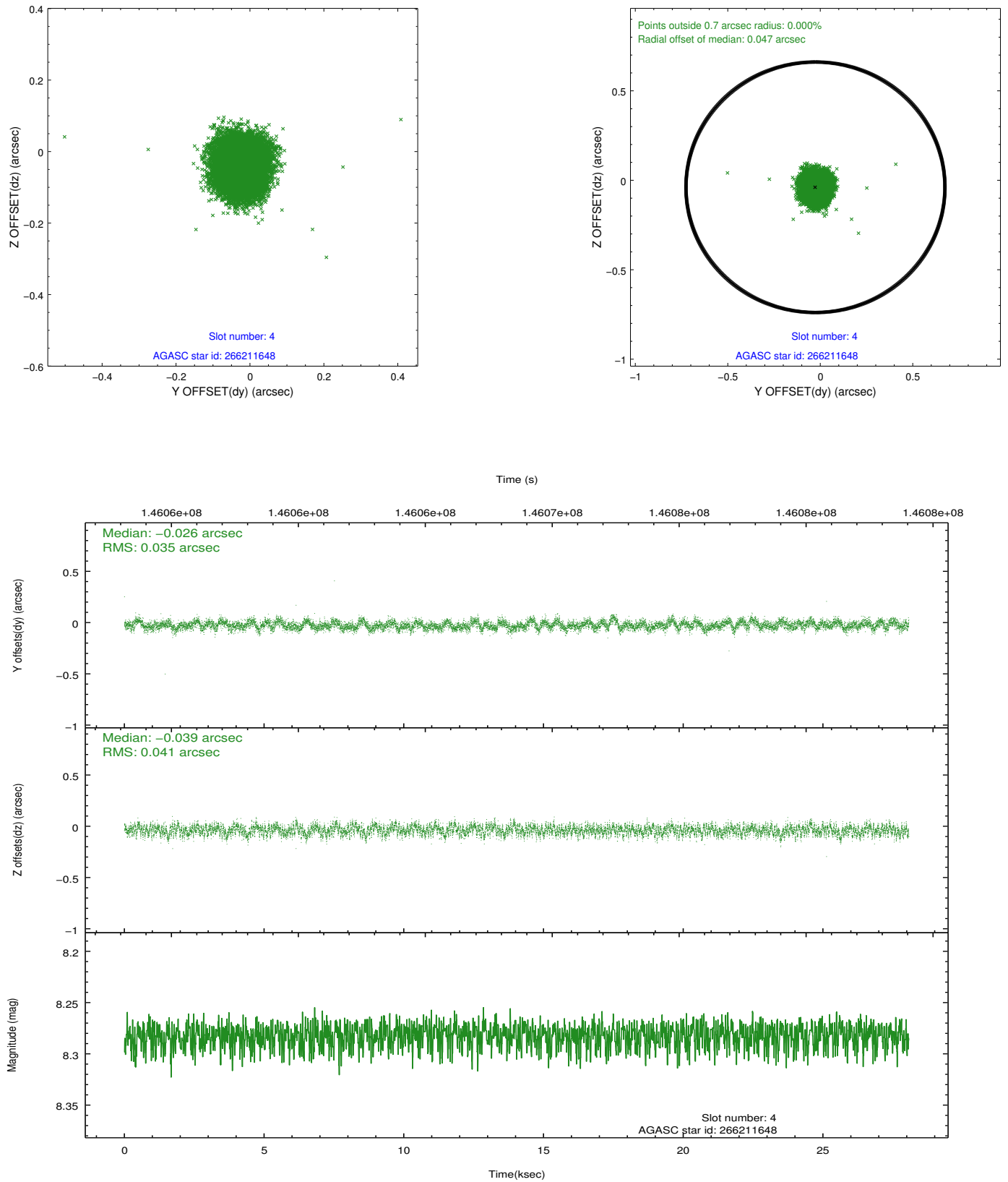
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	6847	0.009	0.027	0.016	0.031	0.000000	0.000000	938.10	-913.22
1	FID	ACIS-I-5	7.24	6847	-0.117	0.046	0.011	0.017	0.000000	0.000000	-1810.06	984.26
2	FID	ACIS-I-6	7.27	6847	0.017	-0.004	0.011	0.019	0.000000	0.000000	403.59	1628.79
3	GUIDE	266216960	7.28	13692	-0.140	-0.125	0.051	0.082	230.691743	28.057036	-1247.46	93.94
4	GUIDE	266211648	8.28	13691	-0.026	-0.039	0.058	0.092	230.073423	27.749704	135.23	-1689.82
5	GUIDE	265824048	8.45	13691	0.083	0.050	0.057	0.091	230.460647	27.398792	1205.40	-283.47
6	GUIDE	266216112	8.95	13691	-0.003	0.045	0.090	0.142	230.938866	27.563060	392.96	1138.79
7	GUIDE	266208112	9.64	13685	0.083	0.067	0.114	0.187	231.029660	28.232058	-2031.42	1059.98

2.4 Star Slots

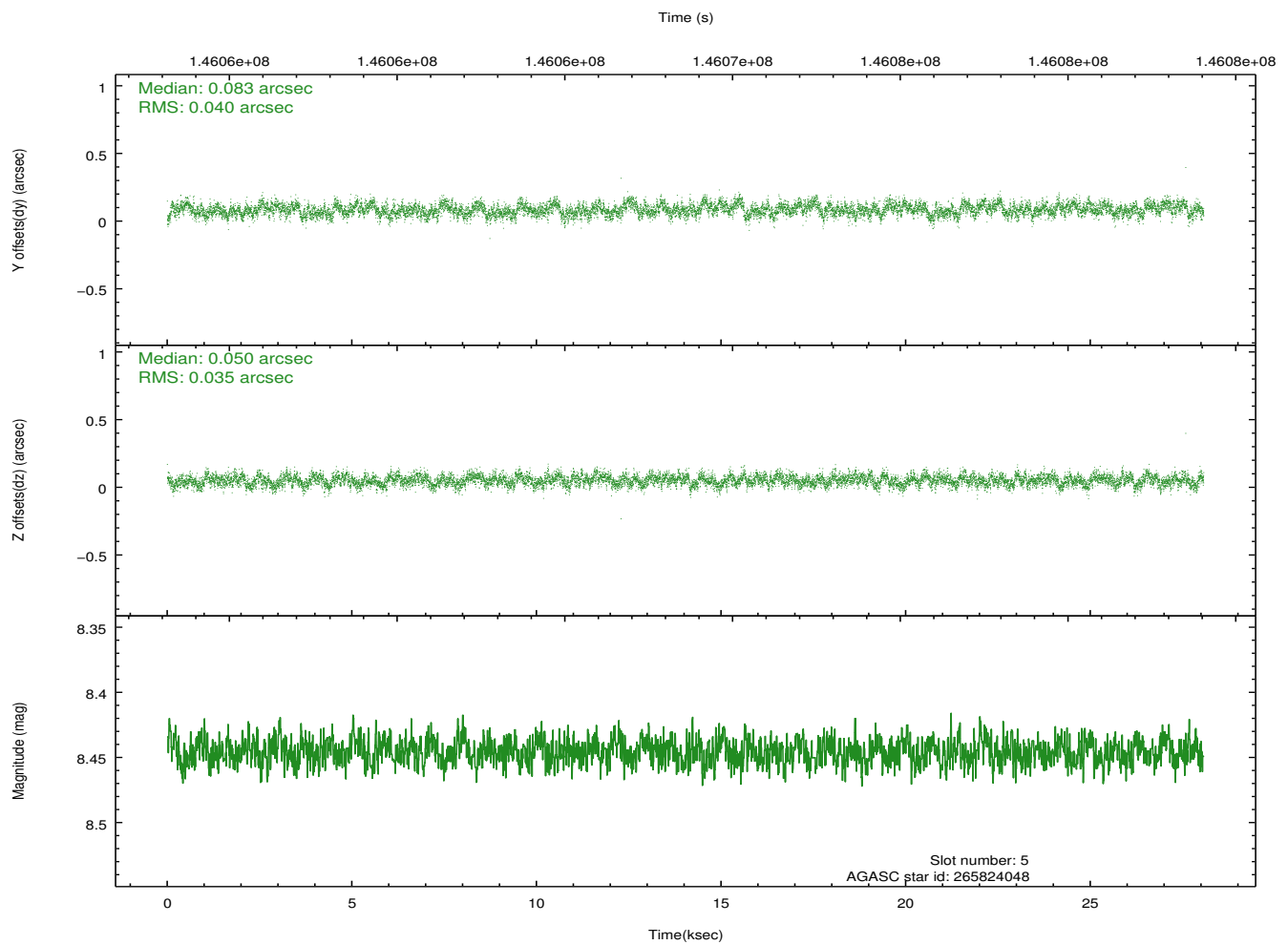
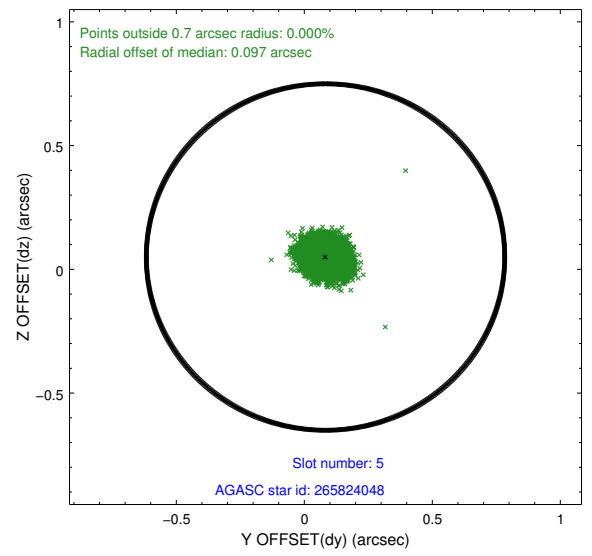
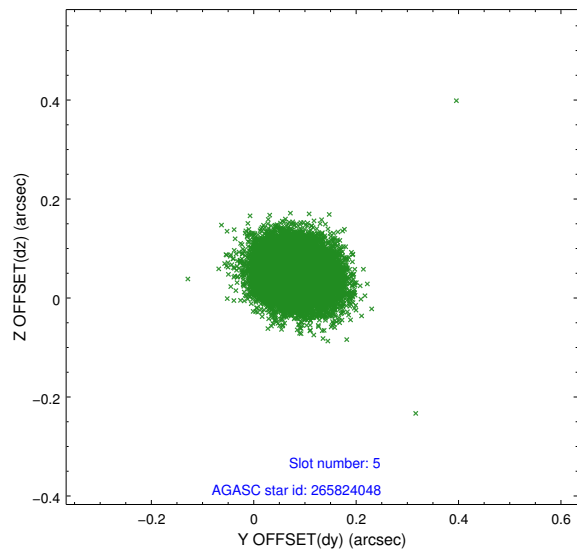
2.4.1 Slot 3



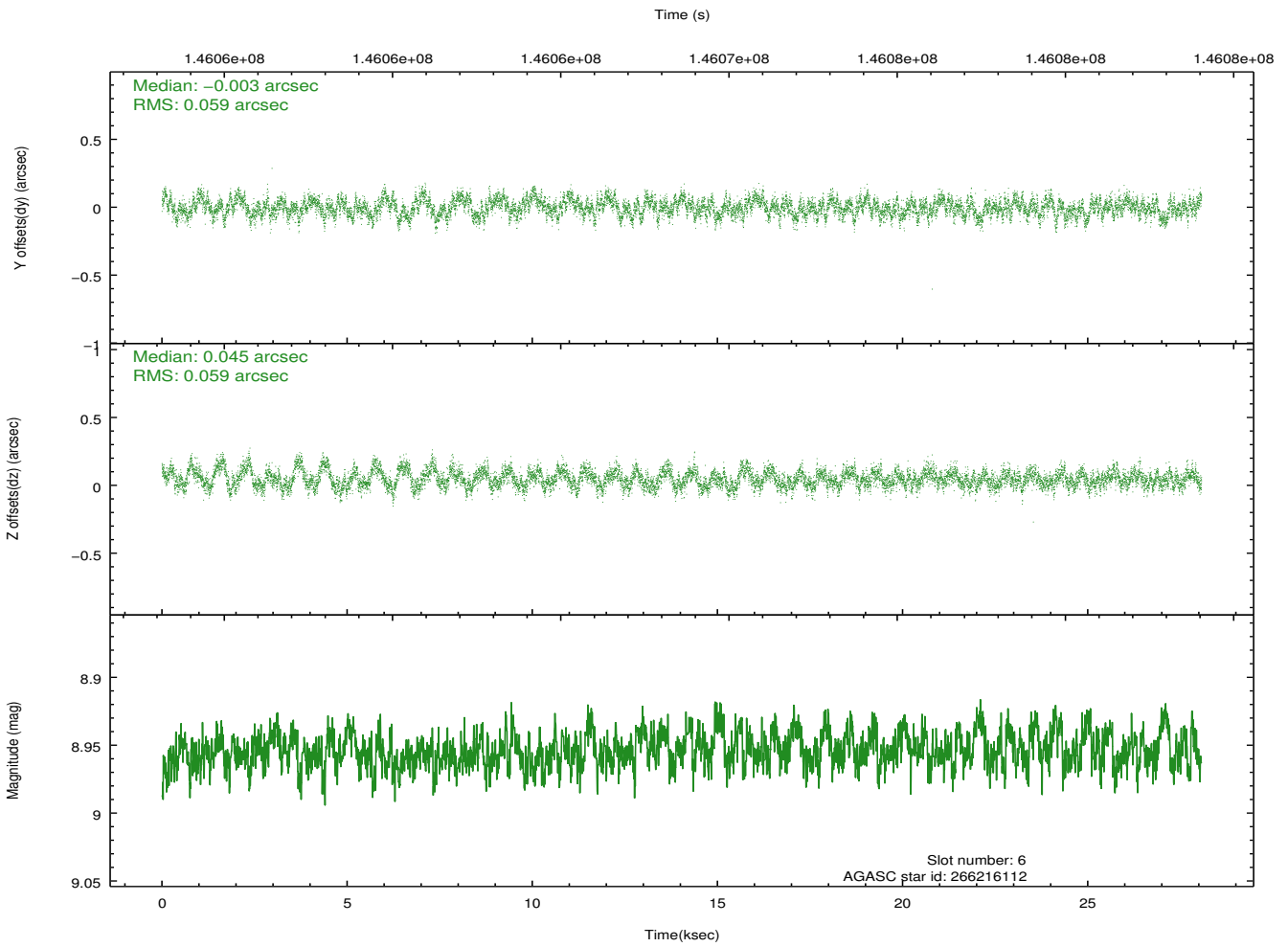
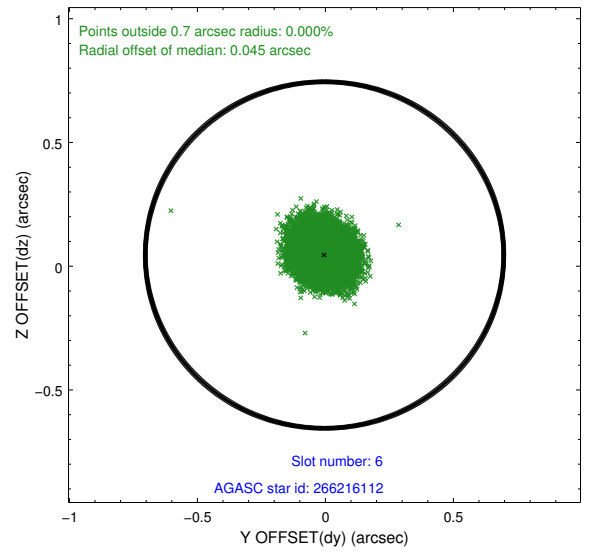
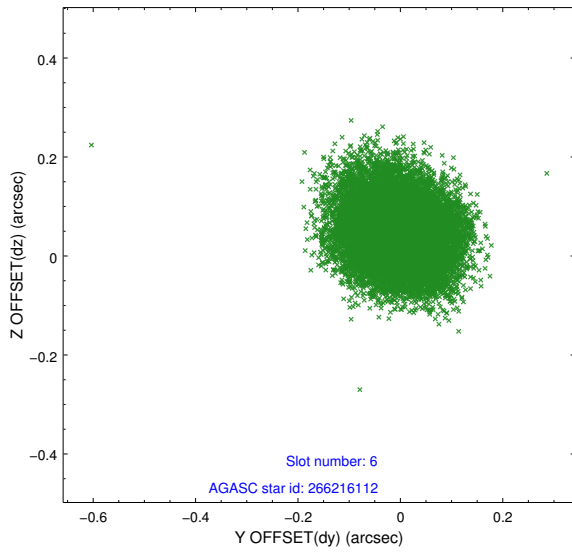
2.4.2 Slot 4



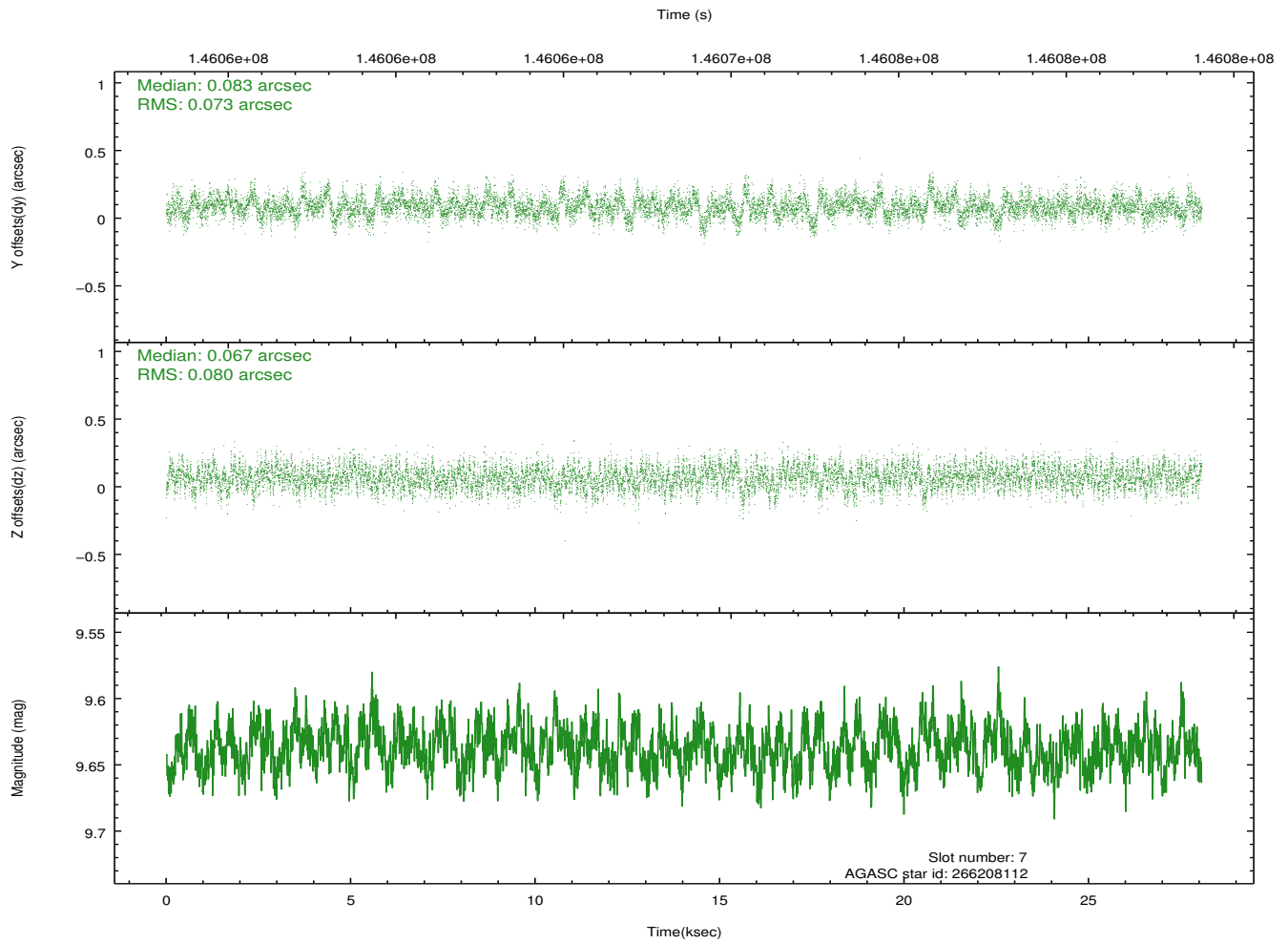
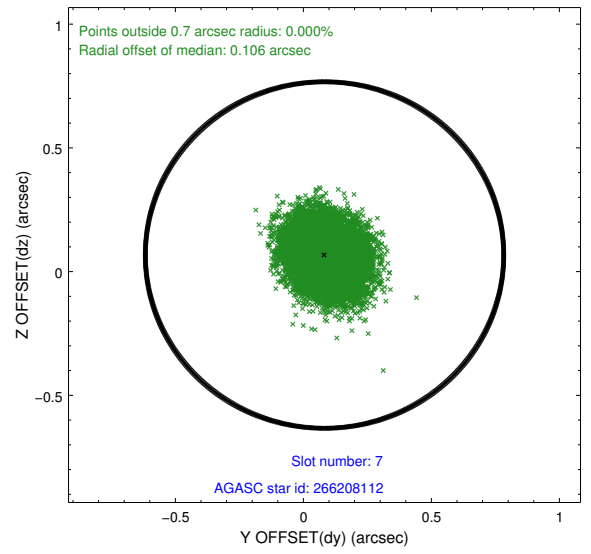
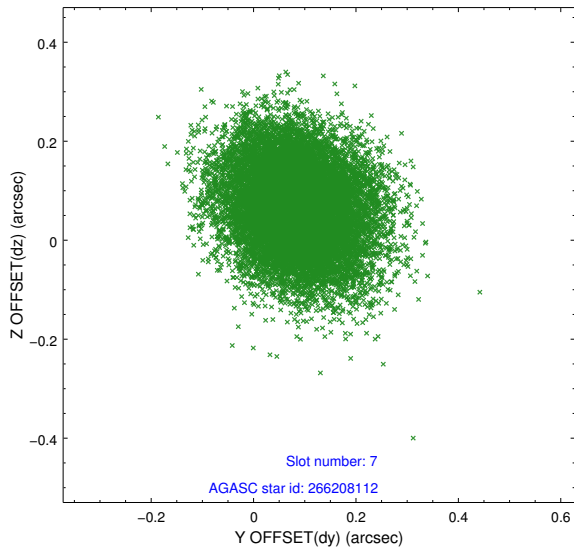
2.4.3 Slot 5



2.4.4 Slot 6

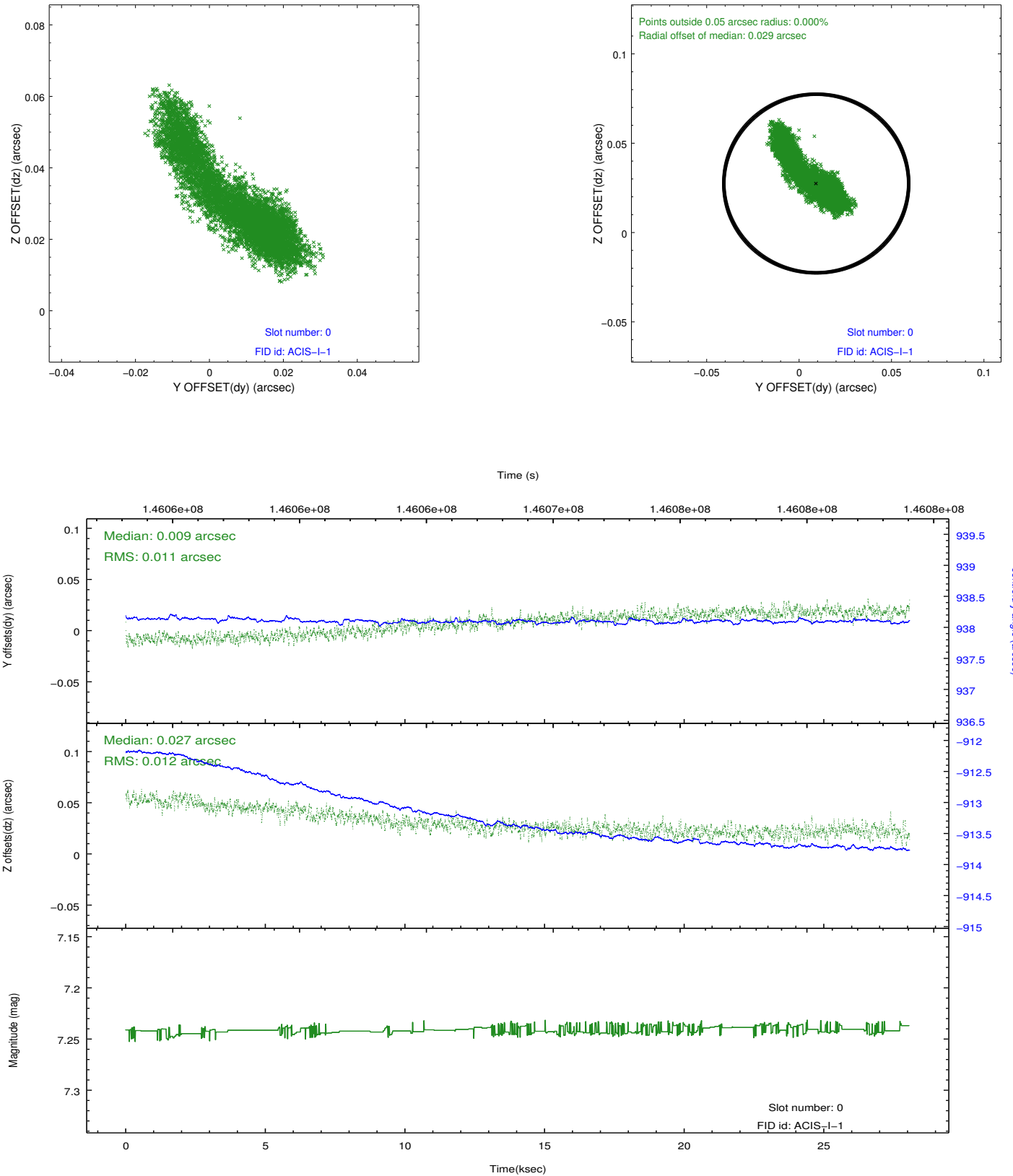


2.4.5 Slot 7

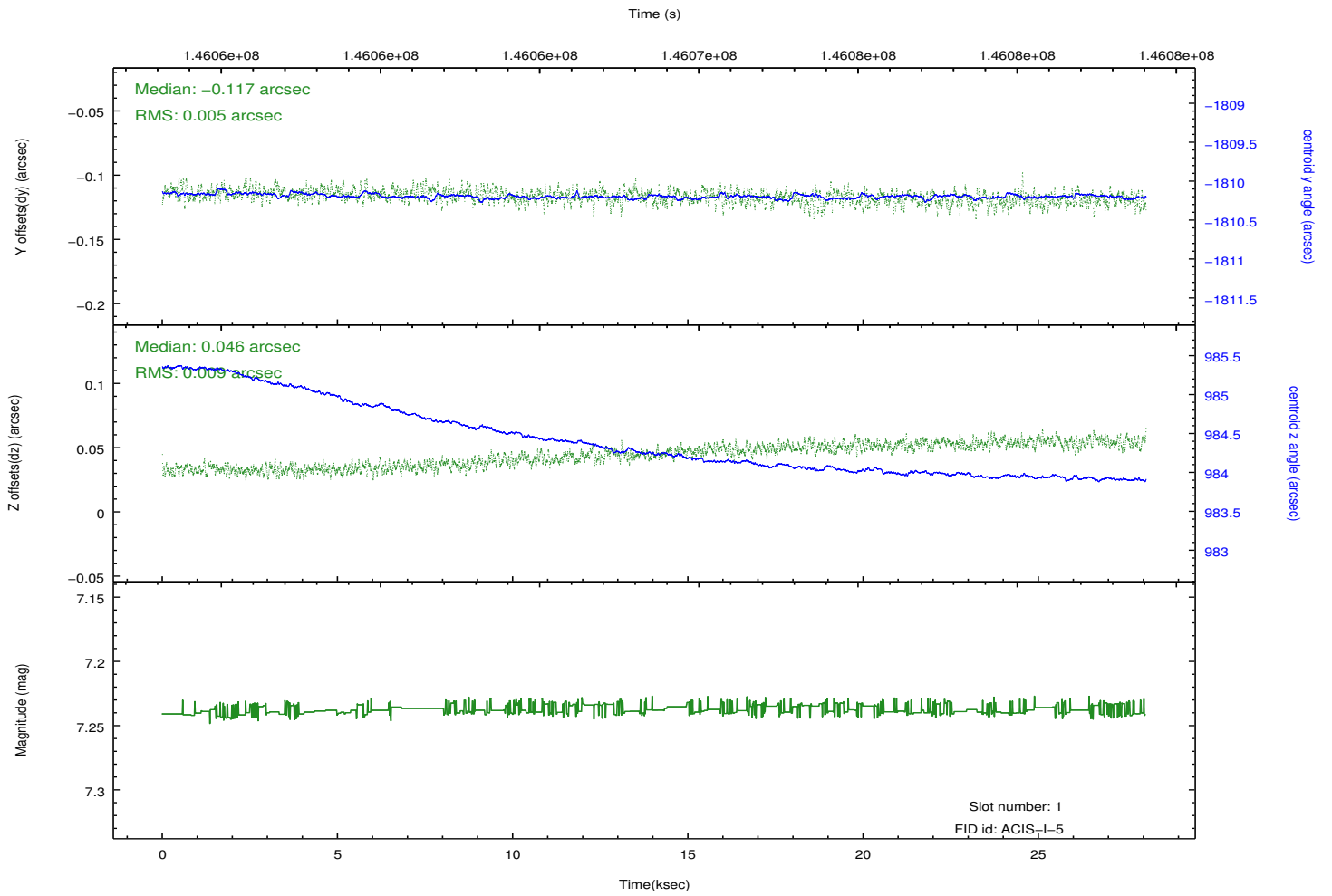
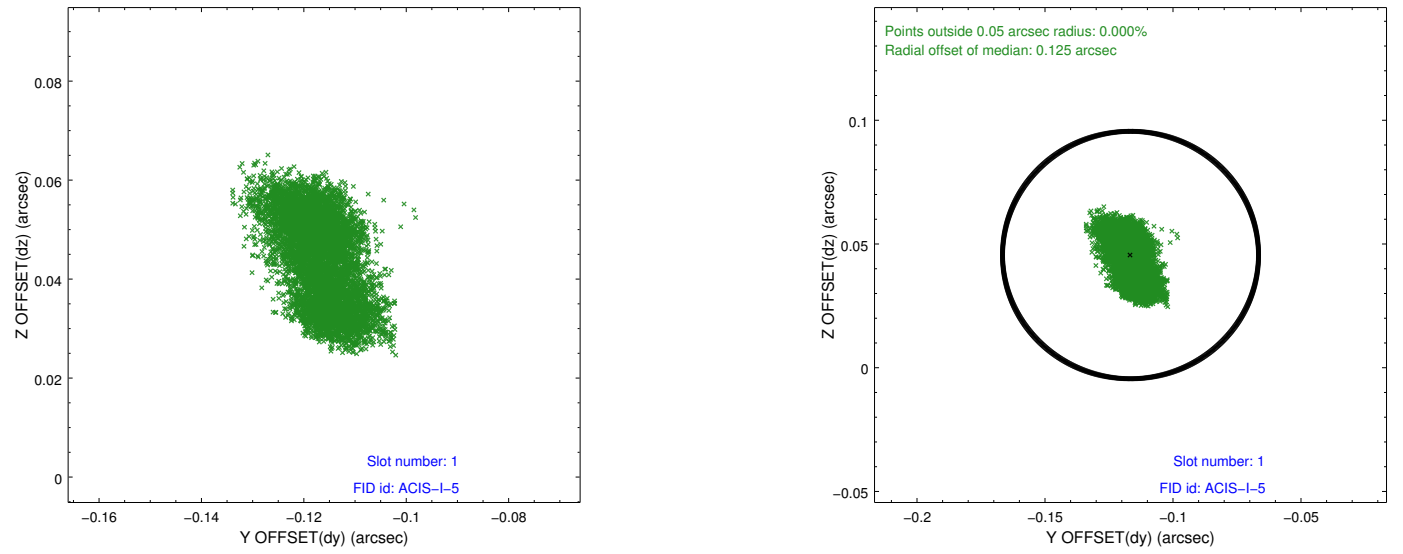


2.5 FID Slots

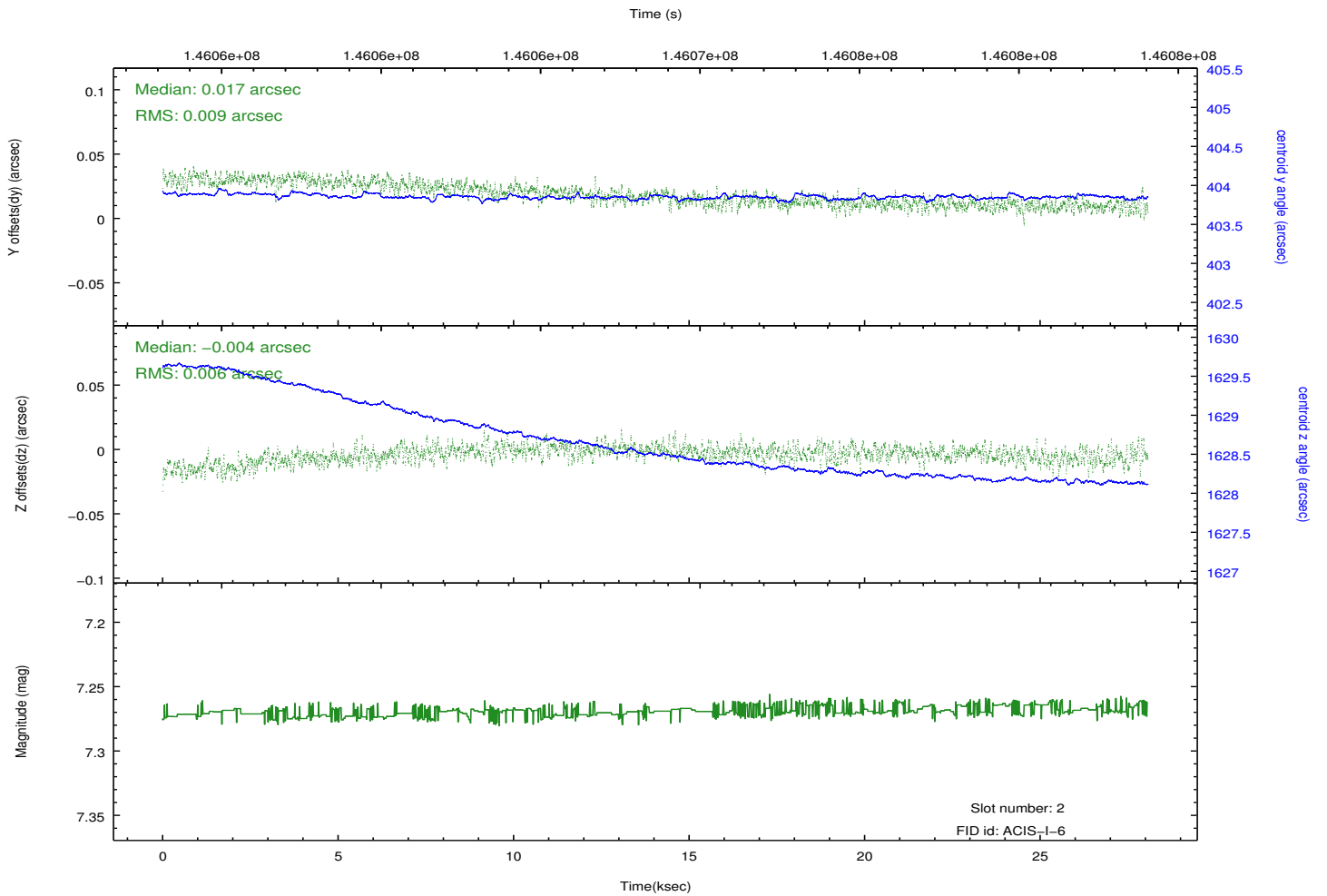
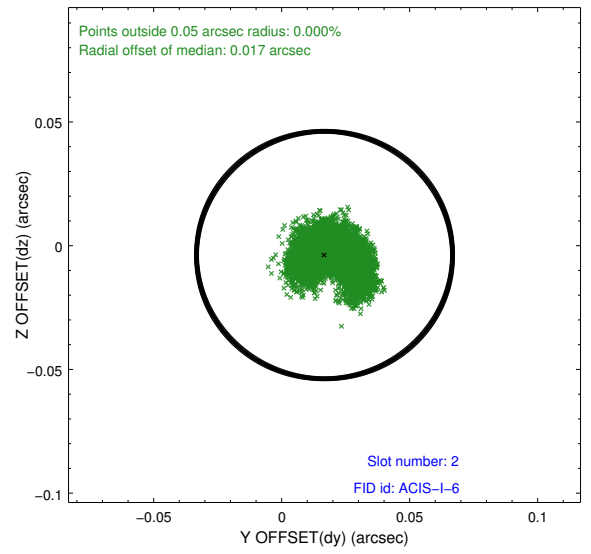
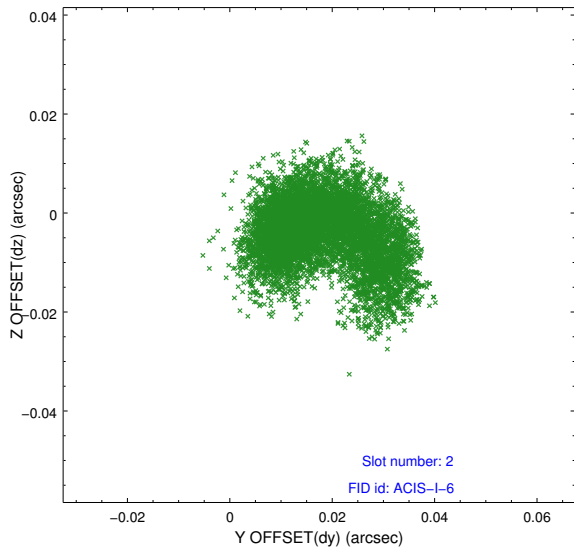
2.5.1 Slot 0



2.5.2 Slot 1



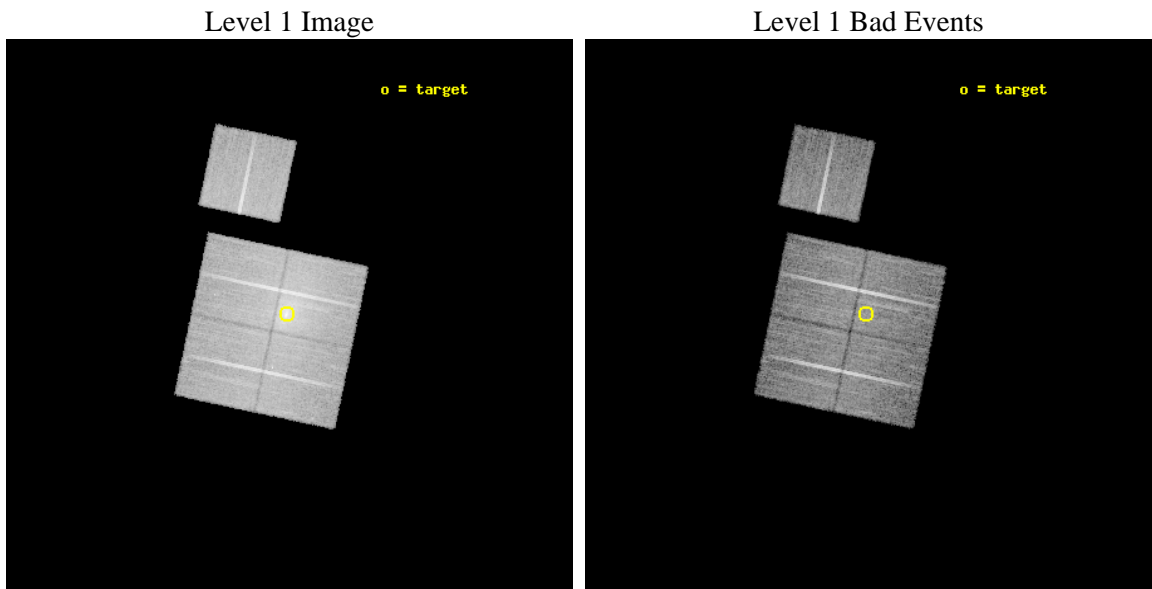
2.5.3 Slot 2



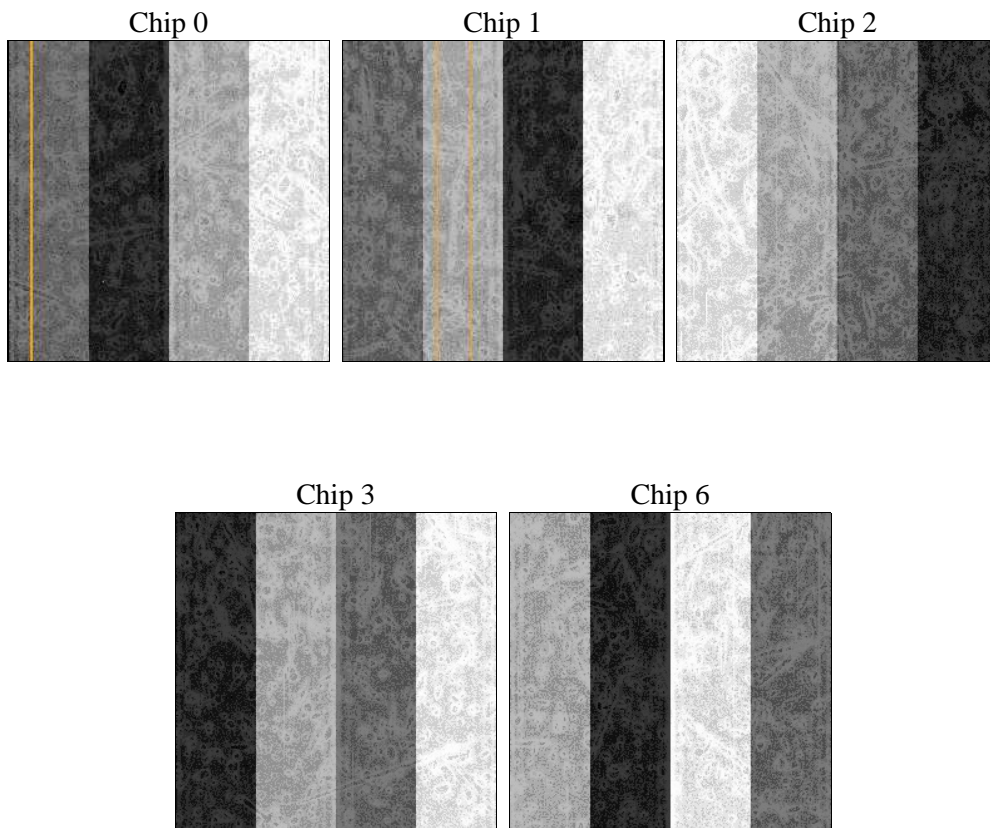
3 OBI

3.1 OBI

3.1.1 Images



3.1.2 Bias



3.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	21955.000000	[s] Scheduled observation exposure time
ascdsver	8.5	Processing system revision	ontime	22044.099957585	Sum of GTIs [s]
caldbver	4.5.4	 	ontime0	22040.958967447	Sum of GTIs [s]
date	2012-12-11T14:15:08	Date and time of file creation	ontime1	22040.958997369	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	22044.099957585	Sum of GTIs [s]
			ontime3	22044.099957585	Sum of GTIs [s]
			ontime6	22040.958987325	Sum of GTIs [s]
			l1events	655142	Number of level 1 events

3.1.4 Events

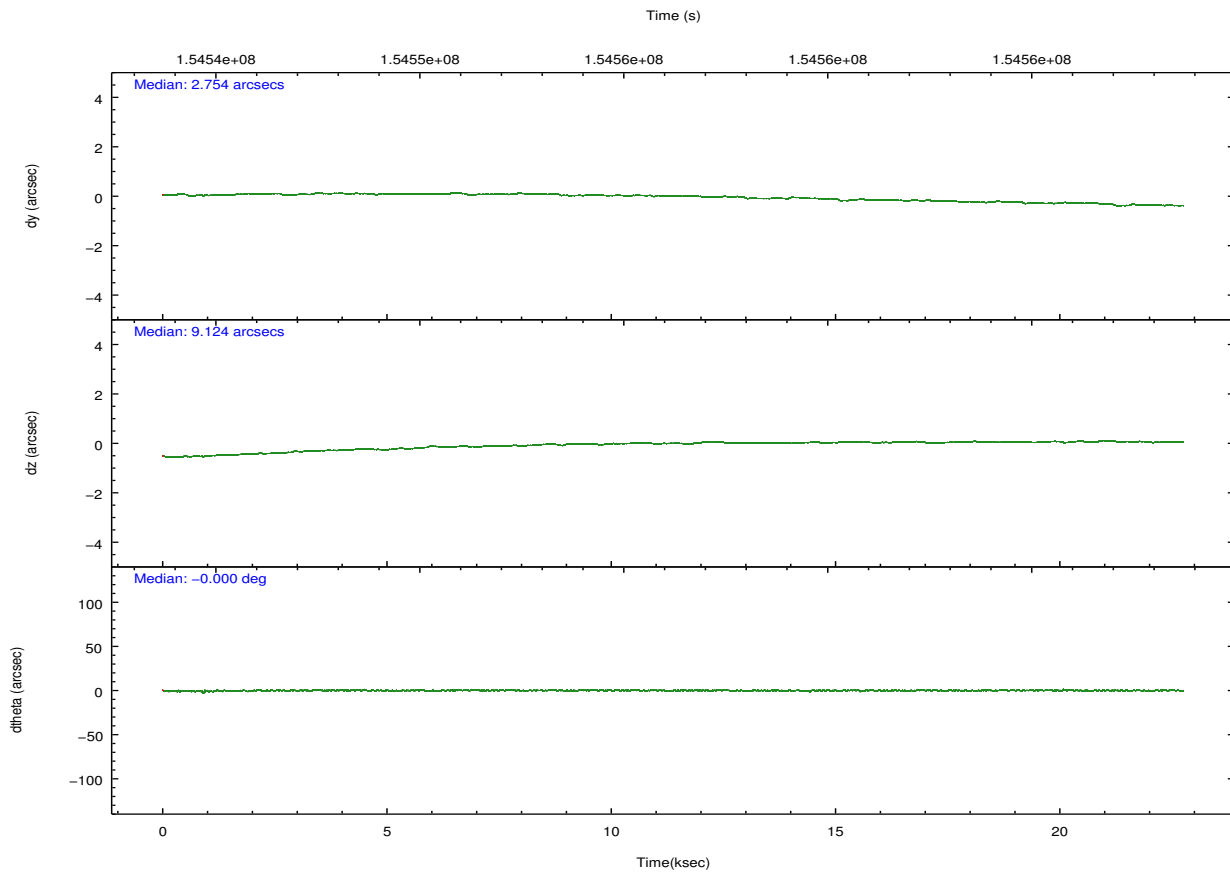
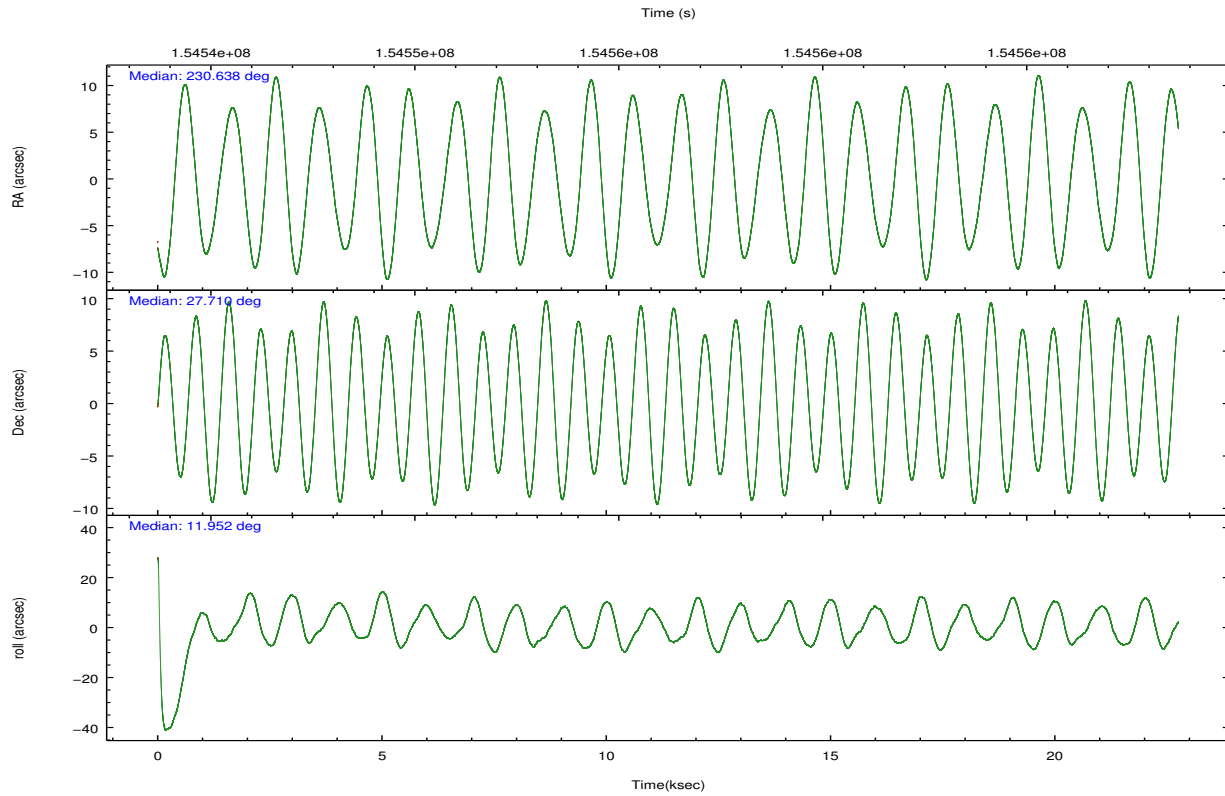
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	117860	120137	133548	167416	116181
rejected events	101487	97774	111824	106911	104008
rejected %	86%	81%	83%	63%	89%

	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	7935	12348	12625	44987	4528
	6%	10%	9%	26%	3%
grade 1 events	64	84	91	250	42
	0%	0%	0%	0%	0%
grade 2 events	3154	3650	3545	6960	2513
	2%	3%	2%	4%	2%
grade 3 events	1559	1786	1622	2736	1359
	1%	1%	1%	1%	1%
grade 4 events	1428	1823	1602	2649	1344
	1%	1%	1%	1%	1%
grade 5 events	4006	4241	3792	4558	4373
	3%	3%	2%	2%	3%
grade 6 events	2300	2765	2336	3195	2434
	1%	2%	1%	1%	2%
grade 7 events	97414	93440	107935	102081	99588
	82%	77%	80%	60%	85%

3.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	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	230.615929	230.6388568574018	Subarray requested	NONE	NONE
[deg] Pointing Dec	27.691398	27.7097893209497	Alternating exposures requested	N	N
[deg] Pointing Roll	11.764262	11.96232572550824	[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	-229.592463	-229.5846445007452			
[mm] SIM translation stage offset	-4	-4.007808502184531			
[s] Observation start time (MET)	154545632.184000	154544365.29534			
Observation start date	2002-11-24T17:19:28	2002-11-24T16:59:25			
[s] Observation end time (MET)	154567587.184000	154568371.82134			
Observation end date	2002-11-24T23:25:23	2002-11-24T23:39:31			
Read mode	TIMED	TIMED			

3.3 Aspect

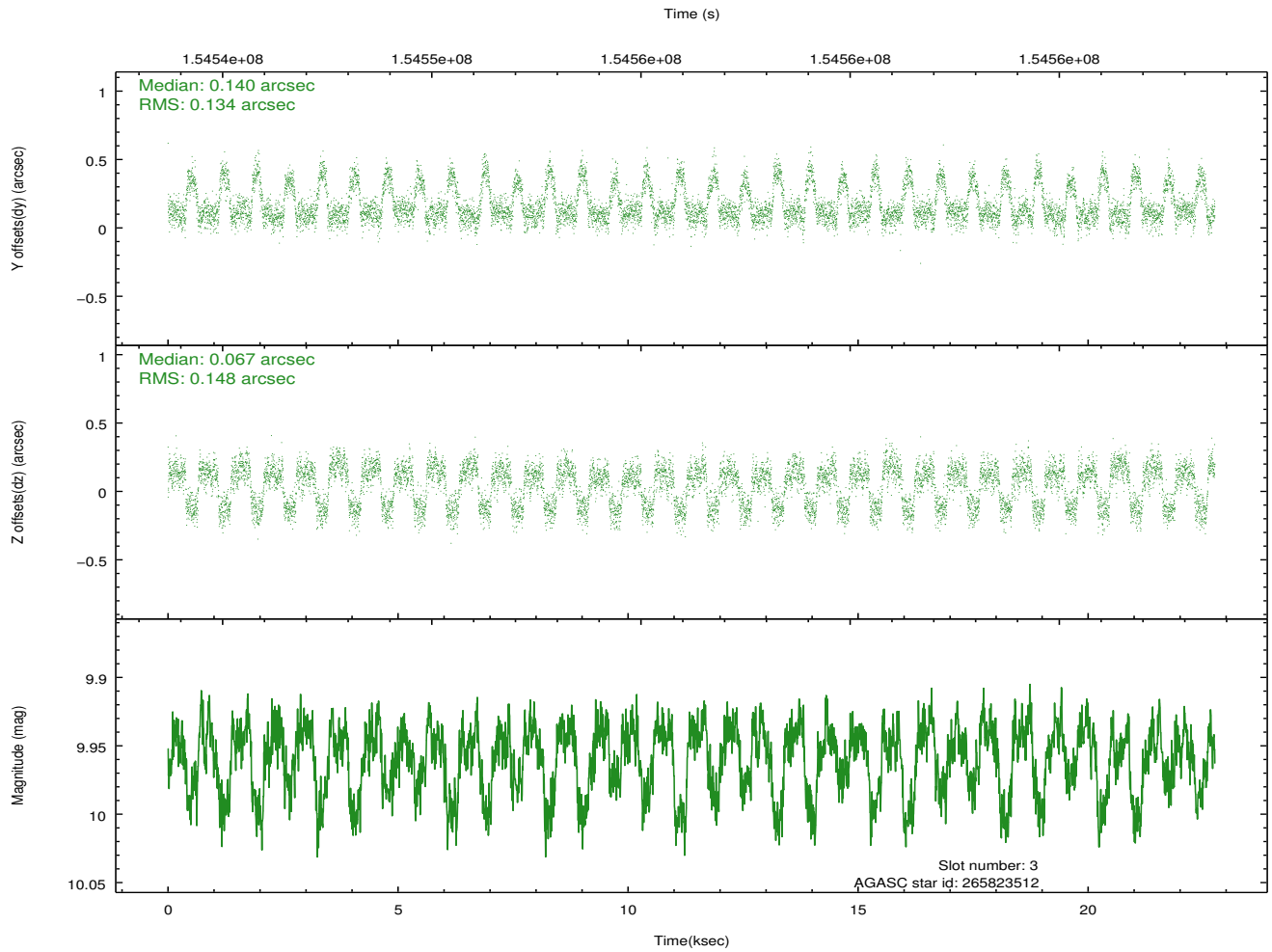
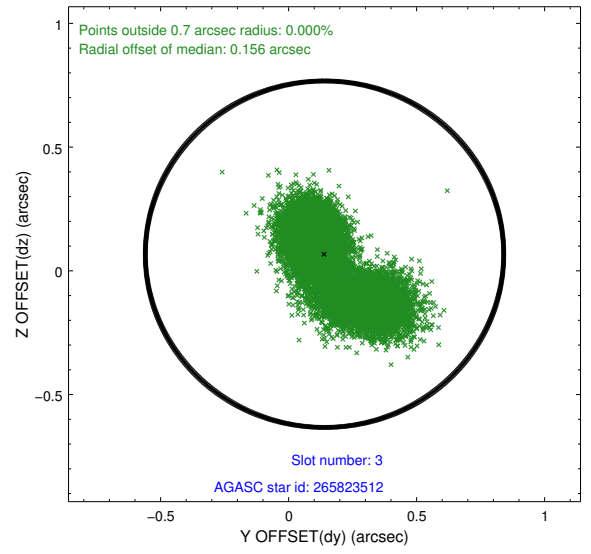
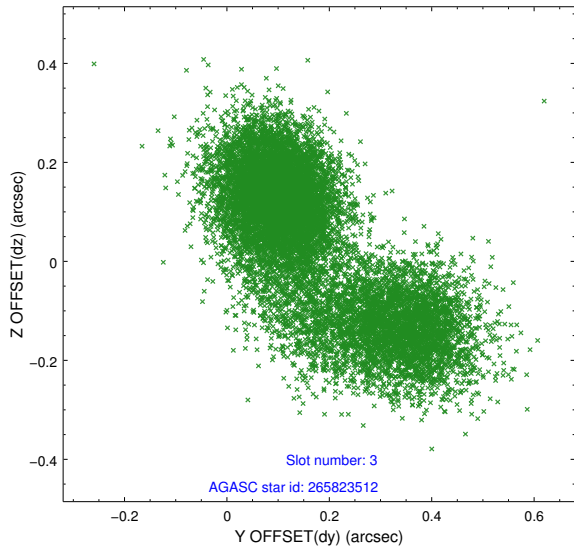


Slot Statistics

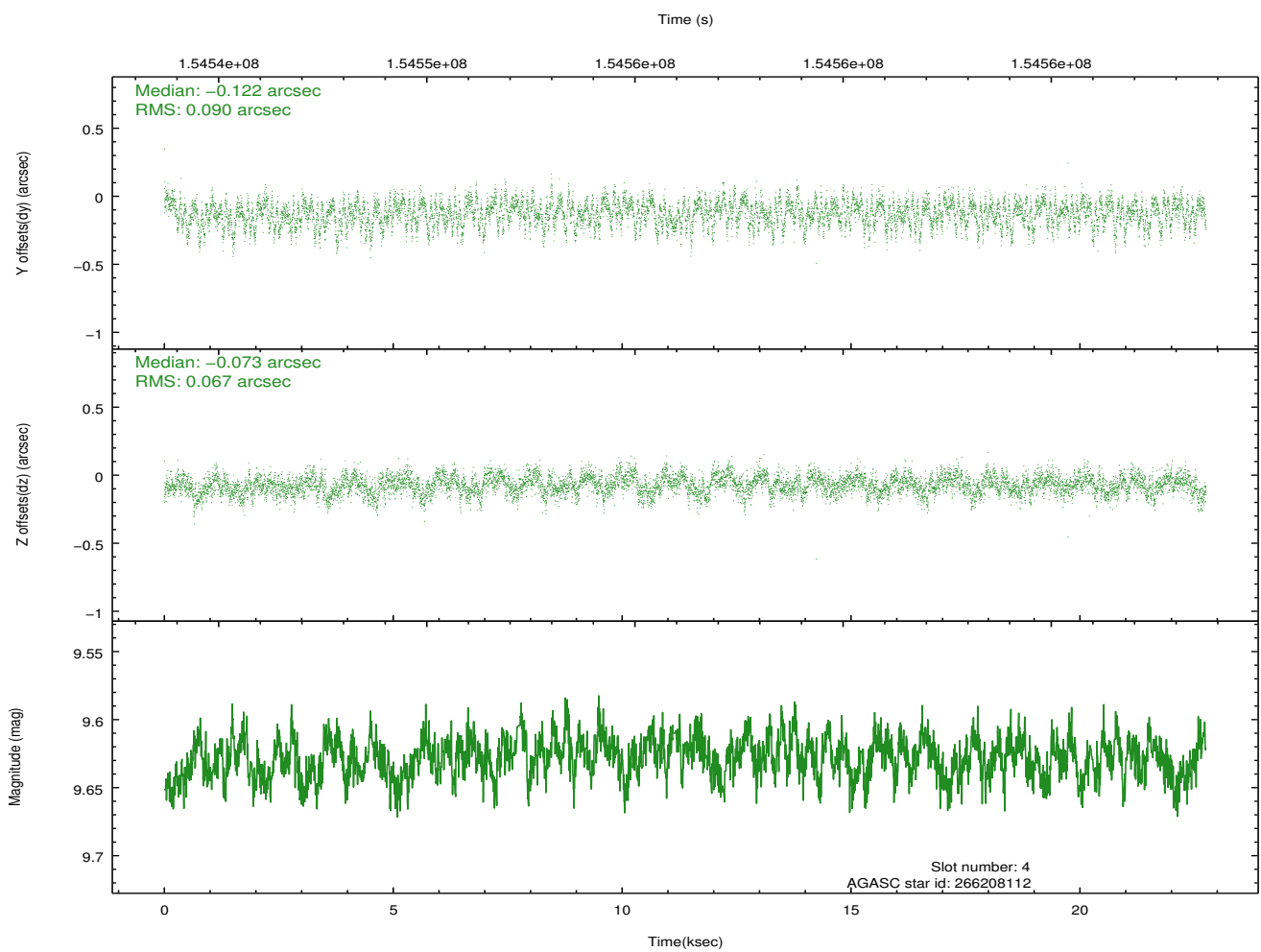
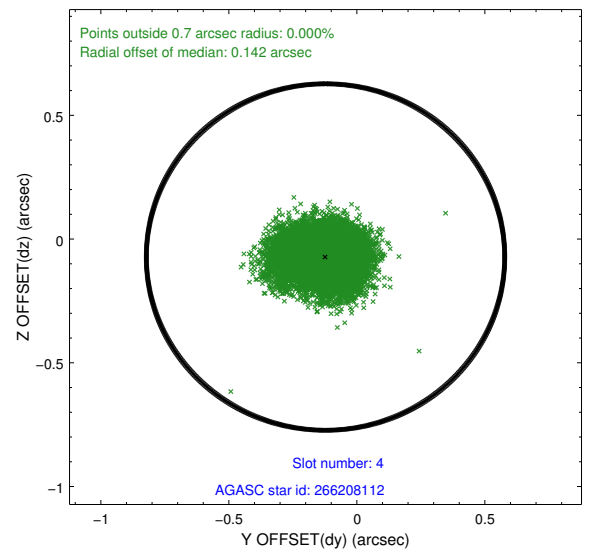
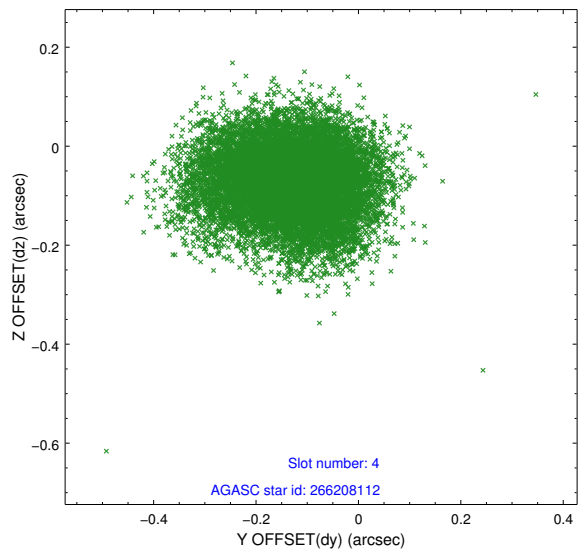
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.24	6847	0.009	0.027	0.016	0.031	0.000000	0.000000	938.10	-913.22
1	FID	ACIS-I-5	7.24	6847	-0.117	0.046	0.011	0.017	0.000000	0.000000	-1810.06	984.26
2	FID	ACIS-I-6	7.27	6847	0.017	-0.004	0.011	0.019	0.000000	0.000000	403.59	1628.79
3	GUIDE	266216960	7.28	13692	-0.140	-0.125	0.051	0.082	230.691743	28.057036	-1247.46	93.94
4	GUIDE	266211648	8.28	13691	-0.026	-0.039	0.058	0.092	230.073423	27.749704	135.23	-1689.82
5	GUIDE	265824048	8.45	13691	0.083	0.050	0.057	0.091	230.460647	27.398792	1205.40	-283.47
6	GUIDE	266216112	8.95	13691	-0.003	0.045	0.090	0.142	230.938866	27.563060	392.96	1138.79
7	GUIDE	266208112	9.64	13685	0.083	0.067	0.114	0.187	231.029660	28.232058	-2031.42	1059.98

3.4 Star Slots

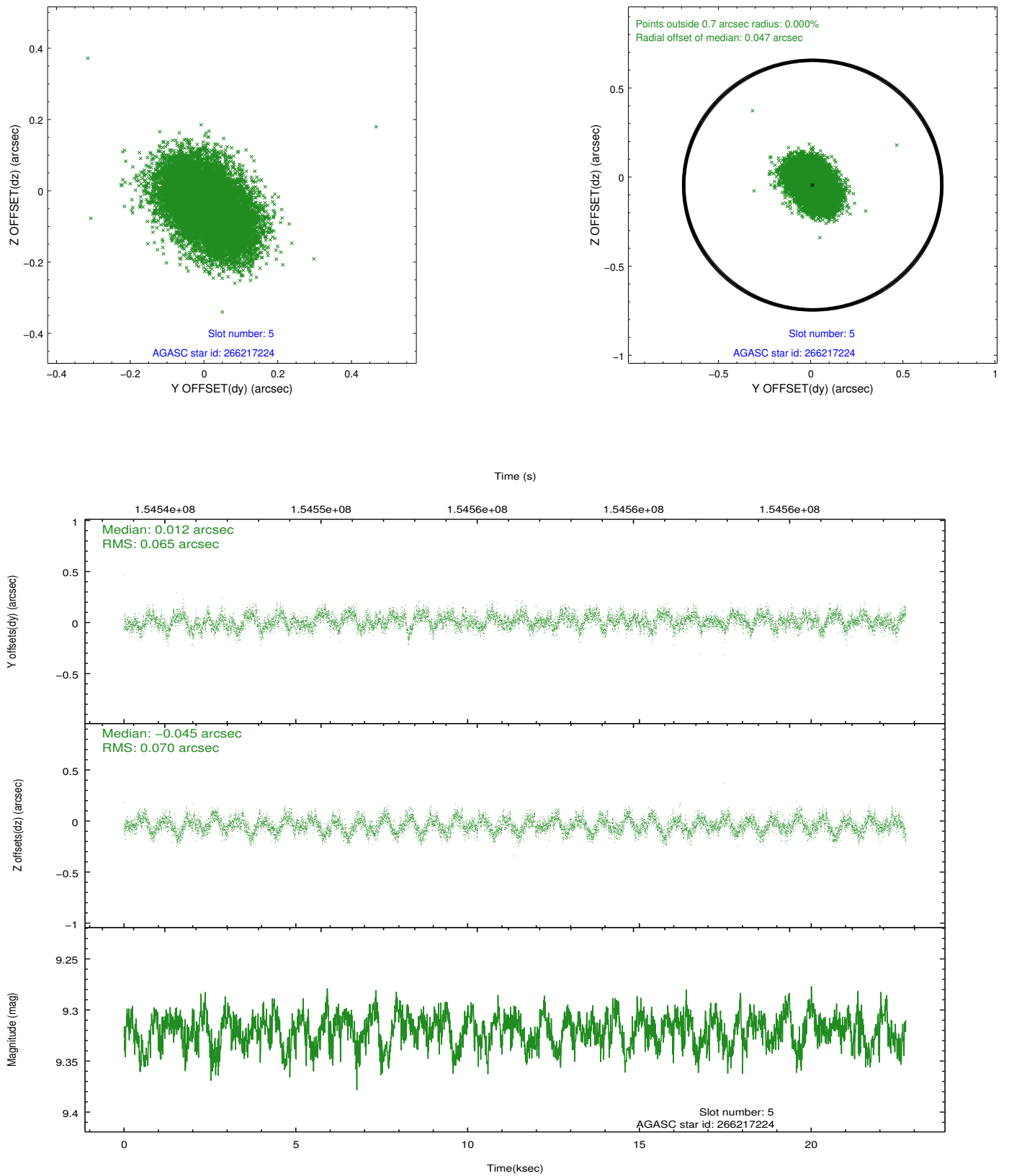
3.4.1 Slot 3



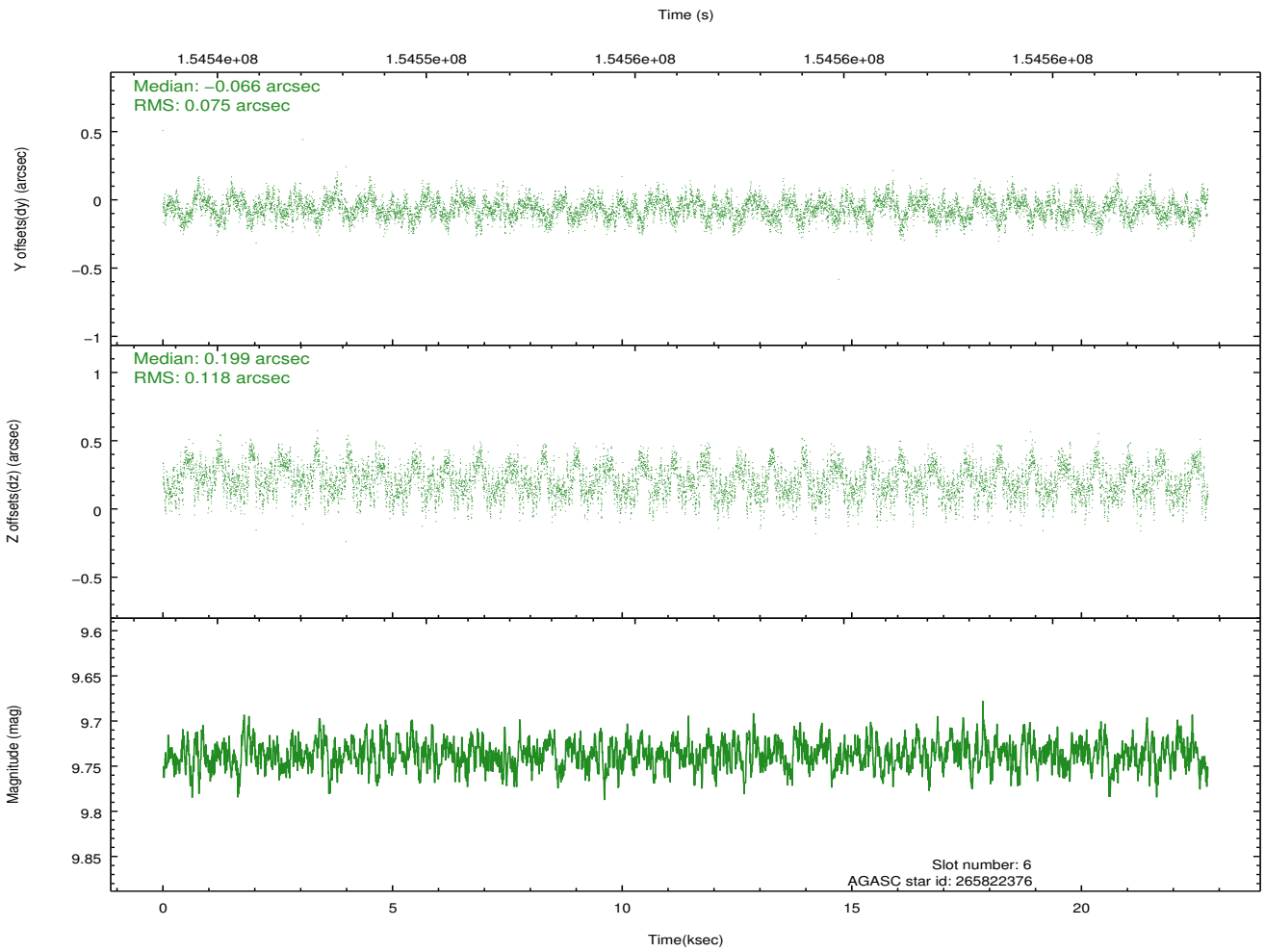
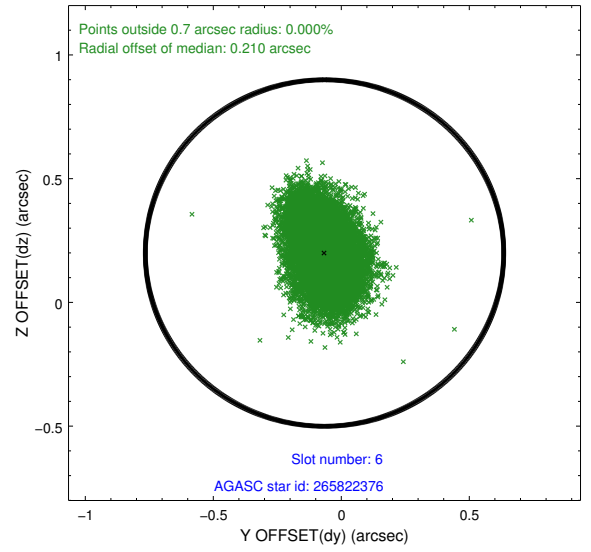
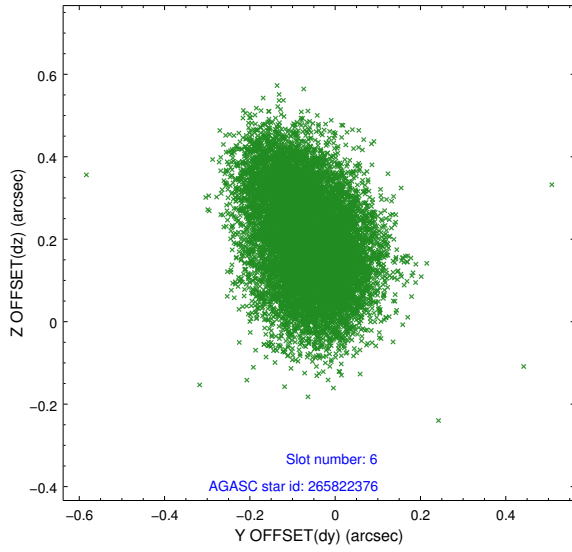
3.4.2 Slot 4



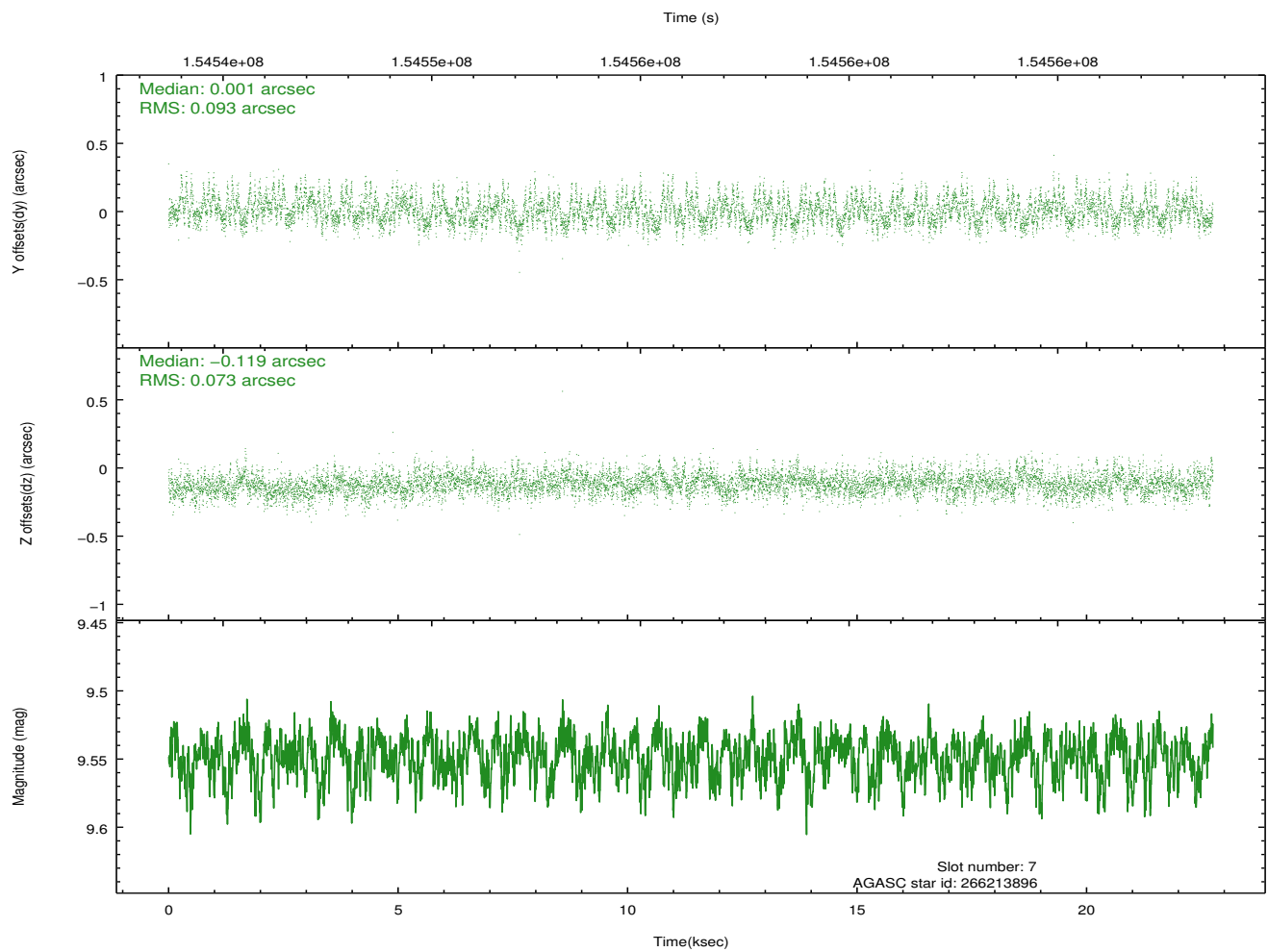
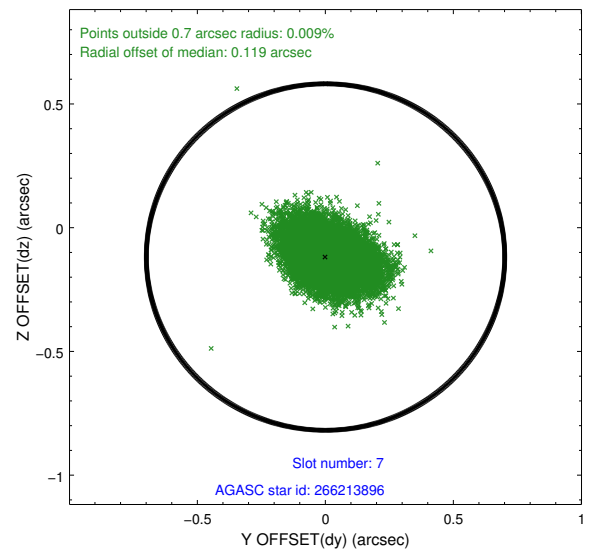
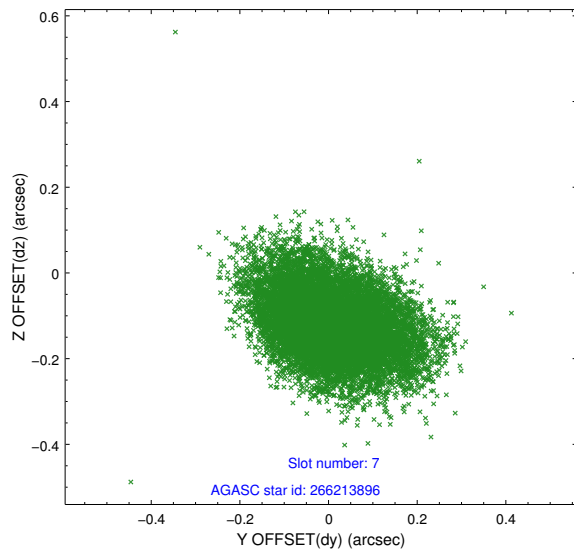
3.4.3 Slot 5



3.4.4 Slot 6

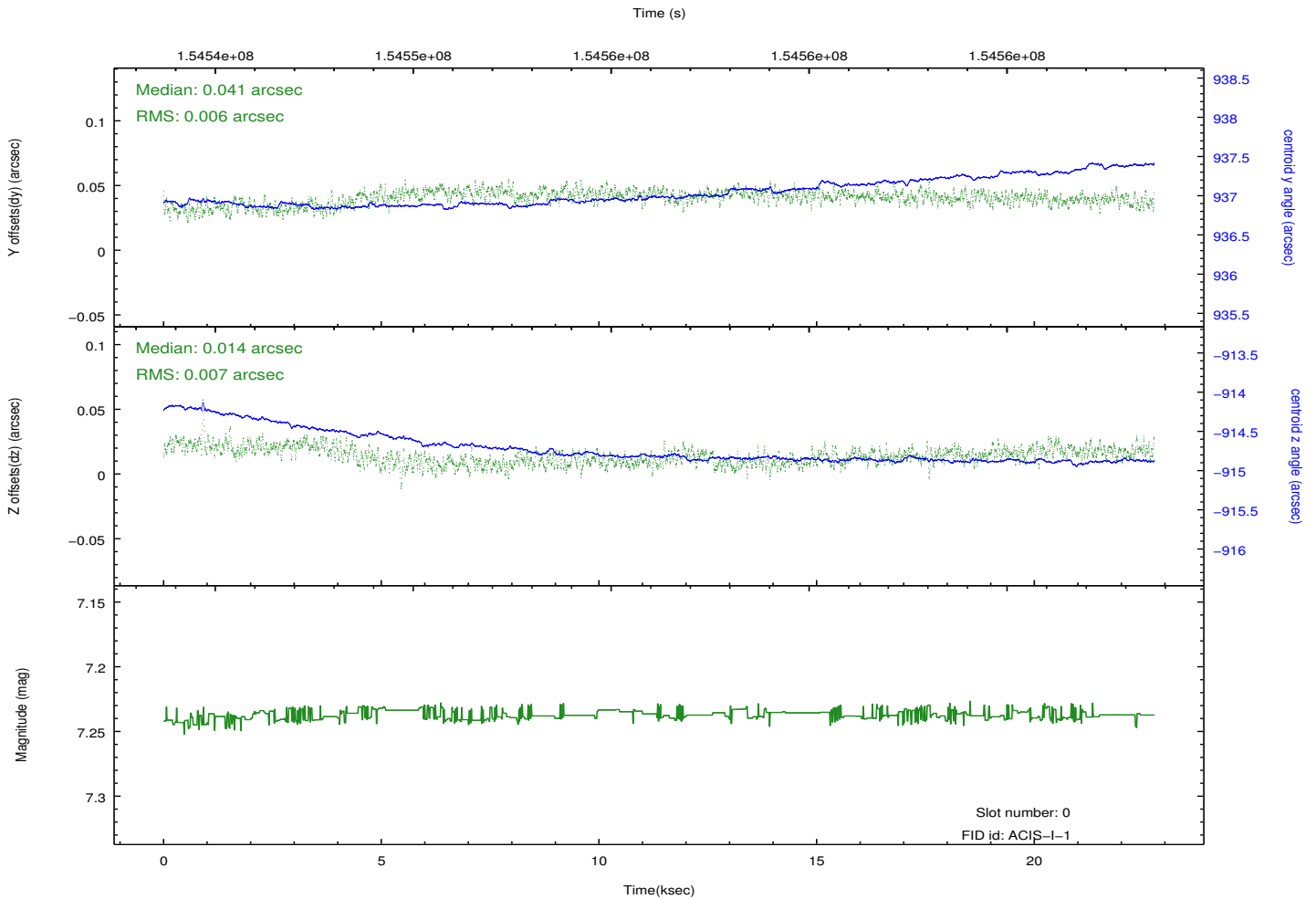
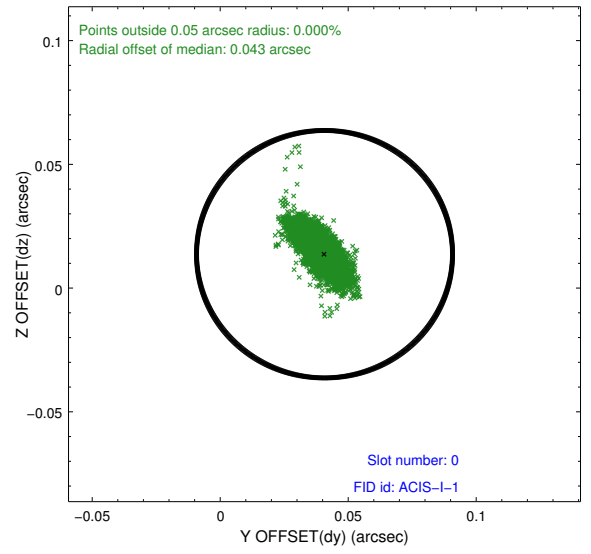
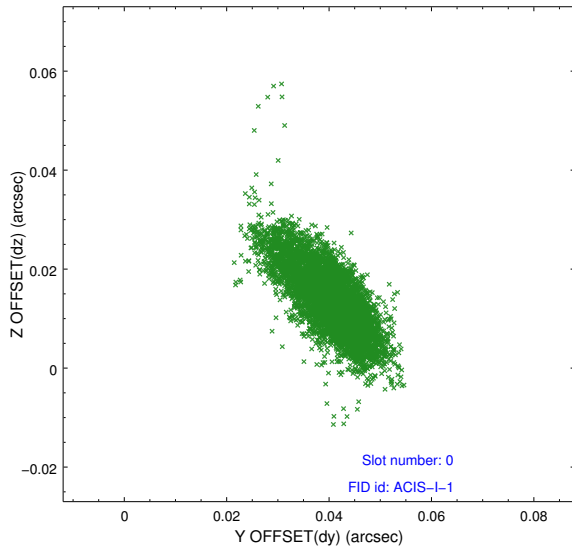


3.4.5 Slot 7

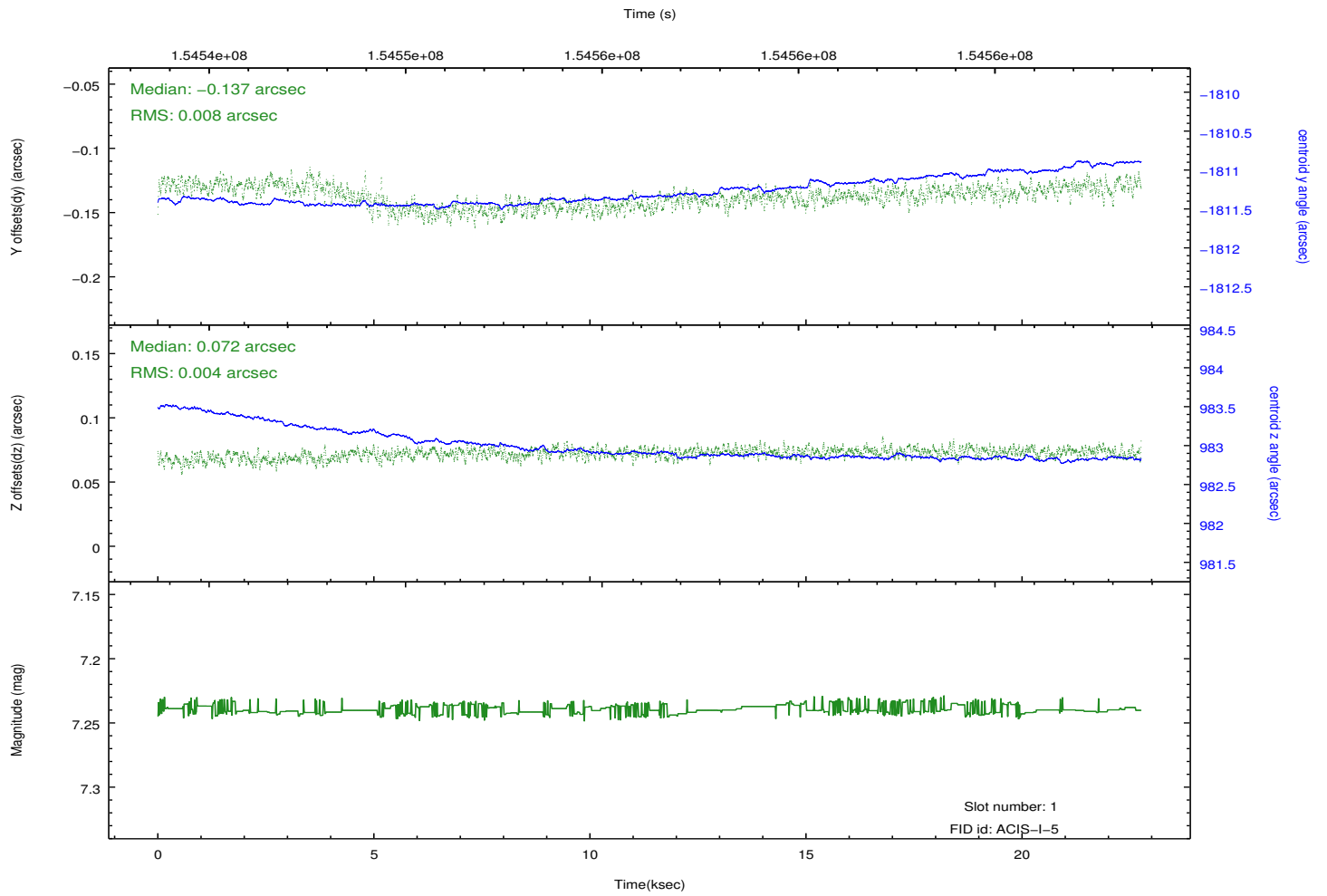
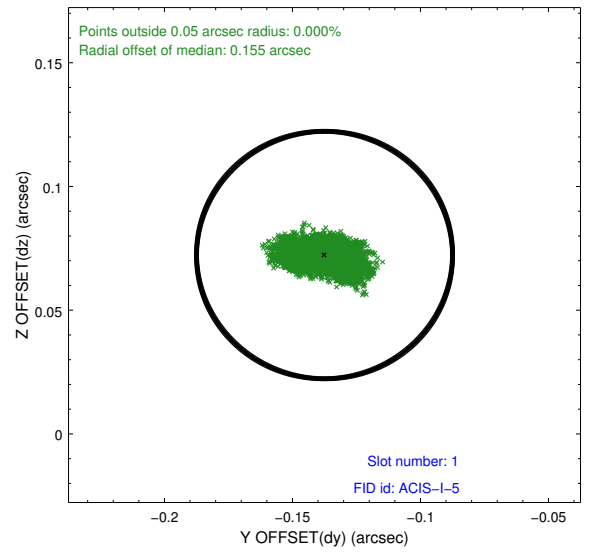
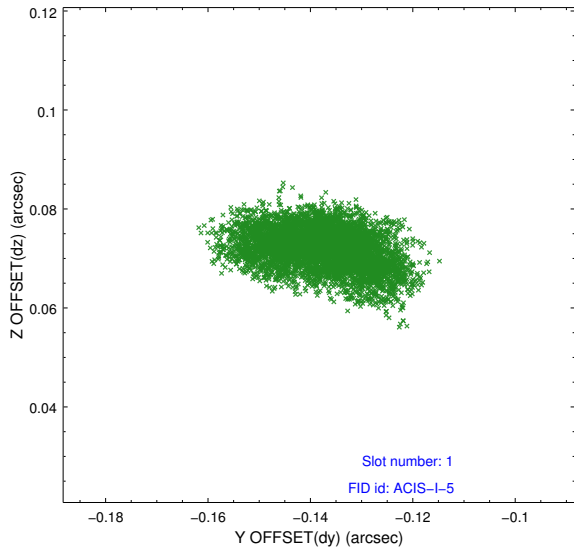


3.5 FID Slots

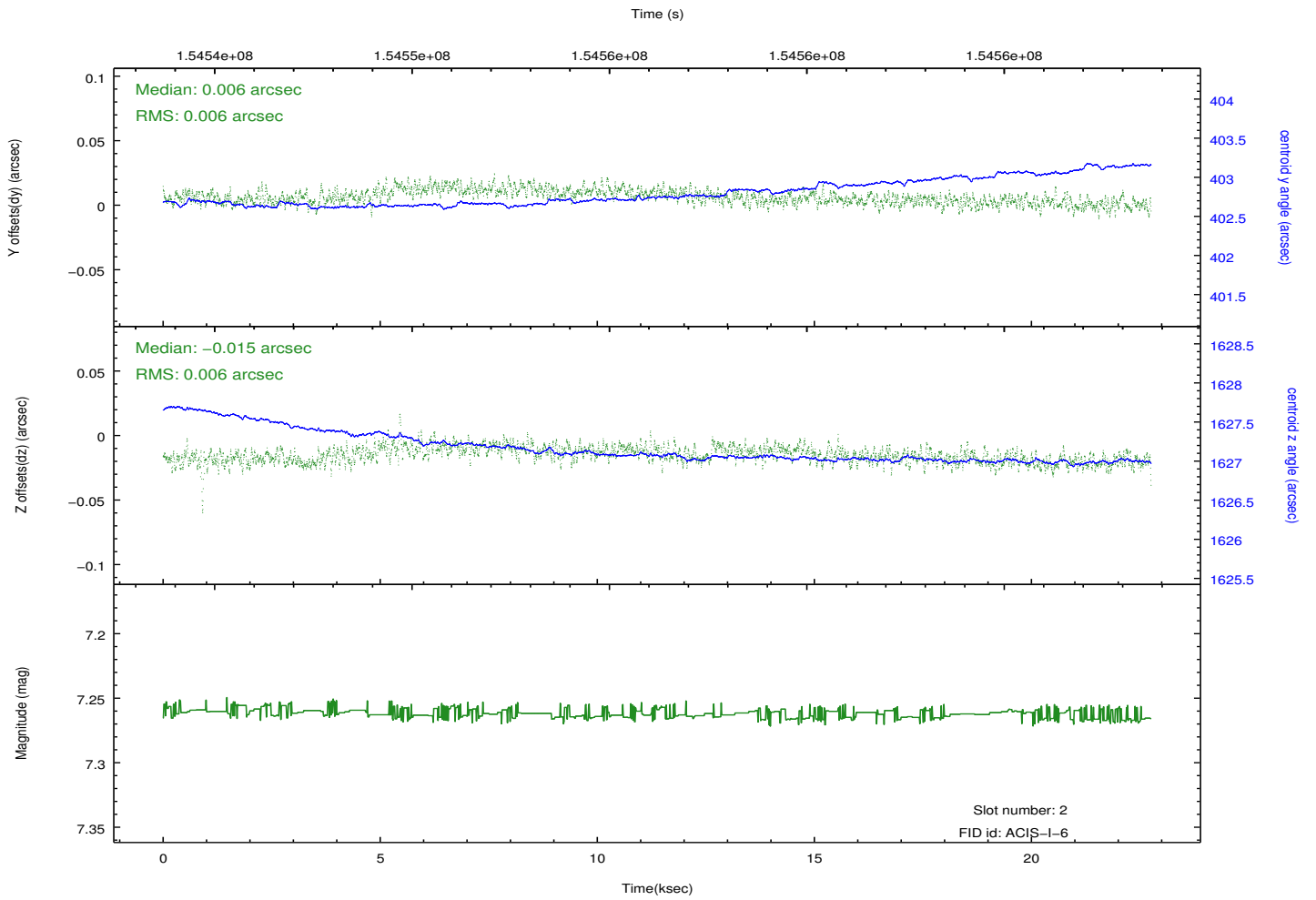
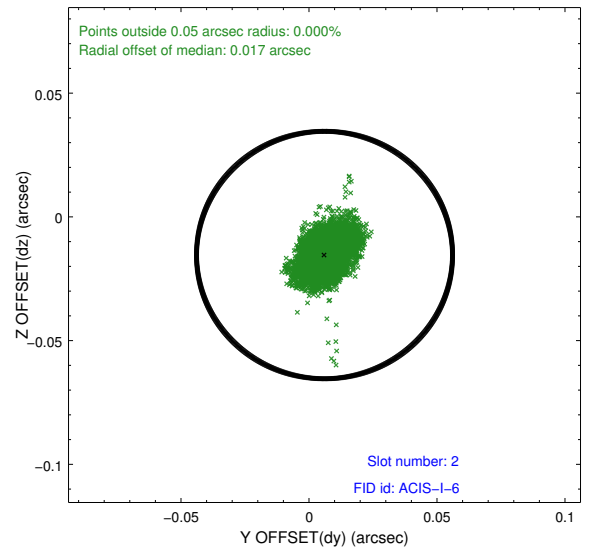
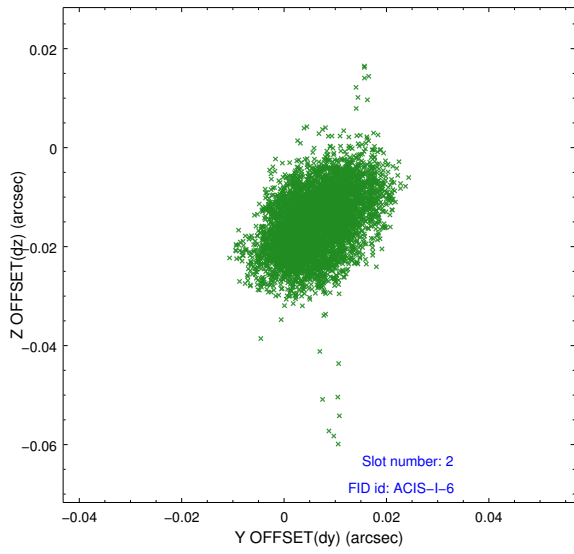
3.5.1 Slot 0



3.5.2 Slot 1



3.5.3 Slot 2



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	50.092

A.2 Comments

Obi=1 of this observation was interrupted by safing of the science instruments onboard Chandra due to high solar radiation environment. The observation was interrupted on 8/18/03 at 1830 GMT approx.