

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 1578 - L2 Version 001
Chandra X-Ray Center

L2 Processing Date : Jan 22 2007

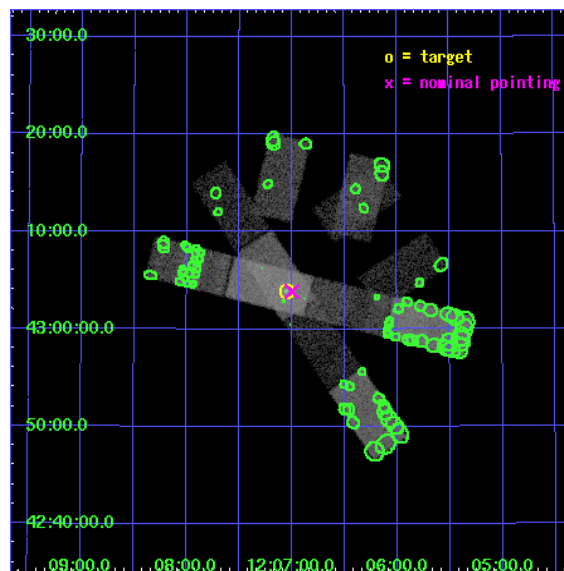
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1 Front

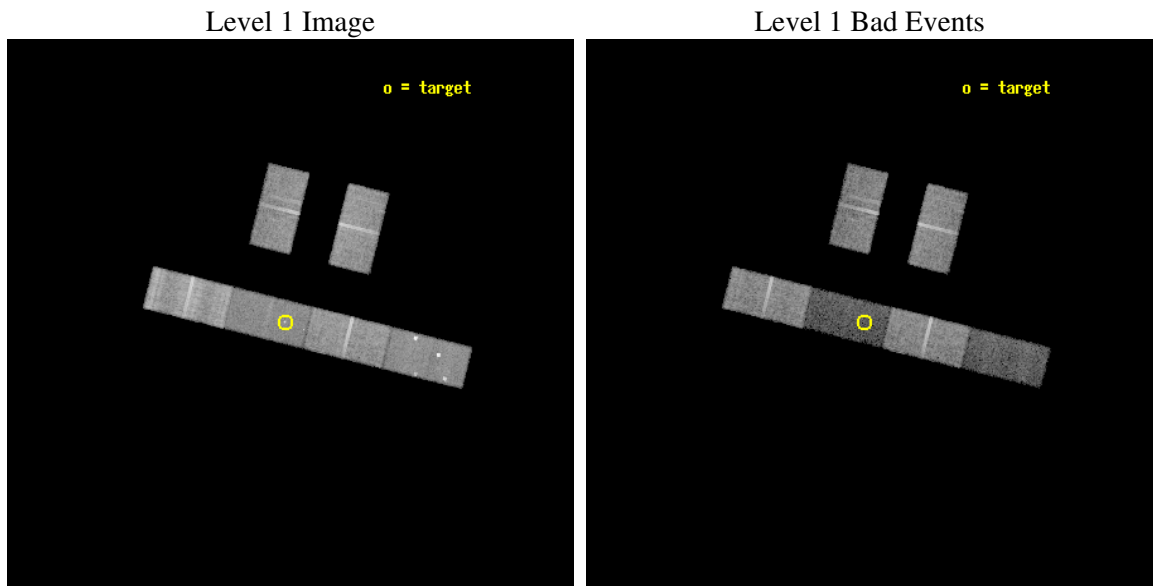
seq_num	600135
obs_id	1578
title	INVESTIGATING THE CENTRAL ENGINES OF LINER 2S
observer	Dr Stephen Murray
object	NGC4111
dtcycle	0
cycle	P
ra_targ	181.763333
dec_targ	43.065361
ra_nom	181.74999393072
dec_nom	43.064719123905
roll_nom	194.03280461696
revision	3
ontime	15100.199974999
livetime	14763.590120257
ontime2	15100.199974999
ontime3	15100.199974999
ontime5	15100.199974999
ontime6	15100.199974999
ontime7	15100.199974999
ontime8	15100.199974999
l2events	142964



2 OBI

2.1 OBI

2.1.1 Images

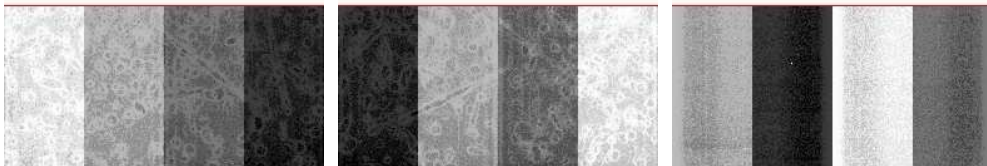


2.1.2 Bias

Chip 2

Chip 3

Chip 5



Chip 6

Chip 7

Chip 8



2.1.3 Parameters

obi_num	1
ascdsver	7.6.10
caldbver	3.3.0
date	2007-01-22T19:05:26
revision	2

sched_exp_time	13800.000000
ontime	5549.3999908119
ontime2	5549.3999908119
ontime3	5549.3999908119
ontime5	5549.3999908119
ontime6	5549.3999908119
ontime7	5549.3999908119
ontime8	5549.3999908119
l1events	393016

2.1.4 Events

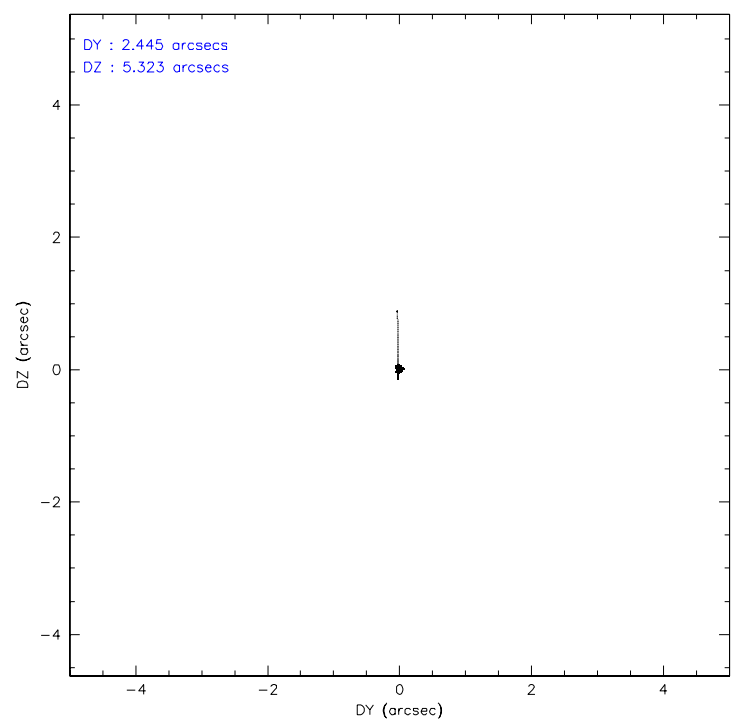
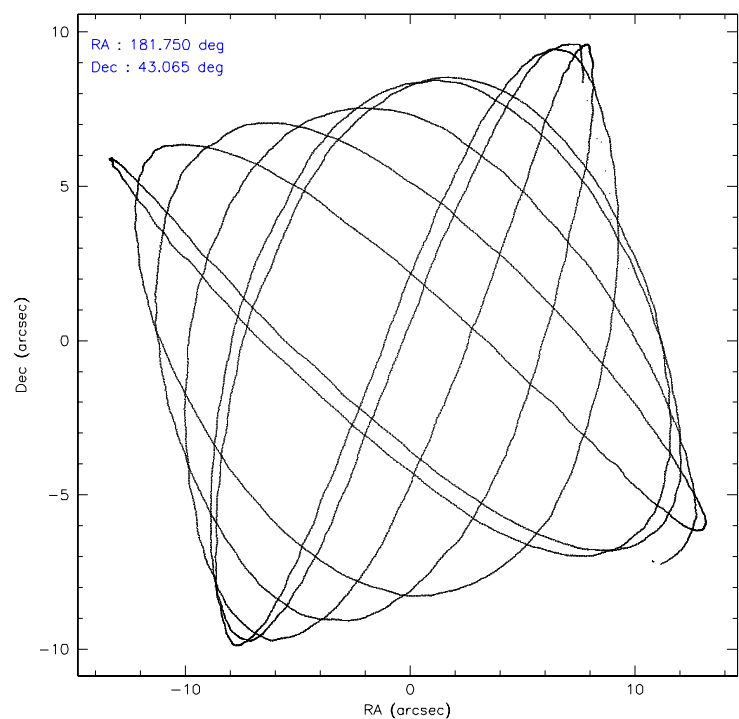
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	68942	58640	57784	68186	47085	92379
rejected events	59972	50067	20072	58926	17530	60249
rejected %	86%	85%	34%	86%	37%	65%

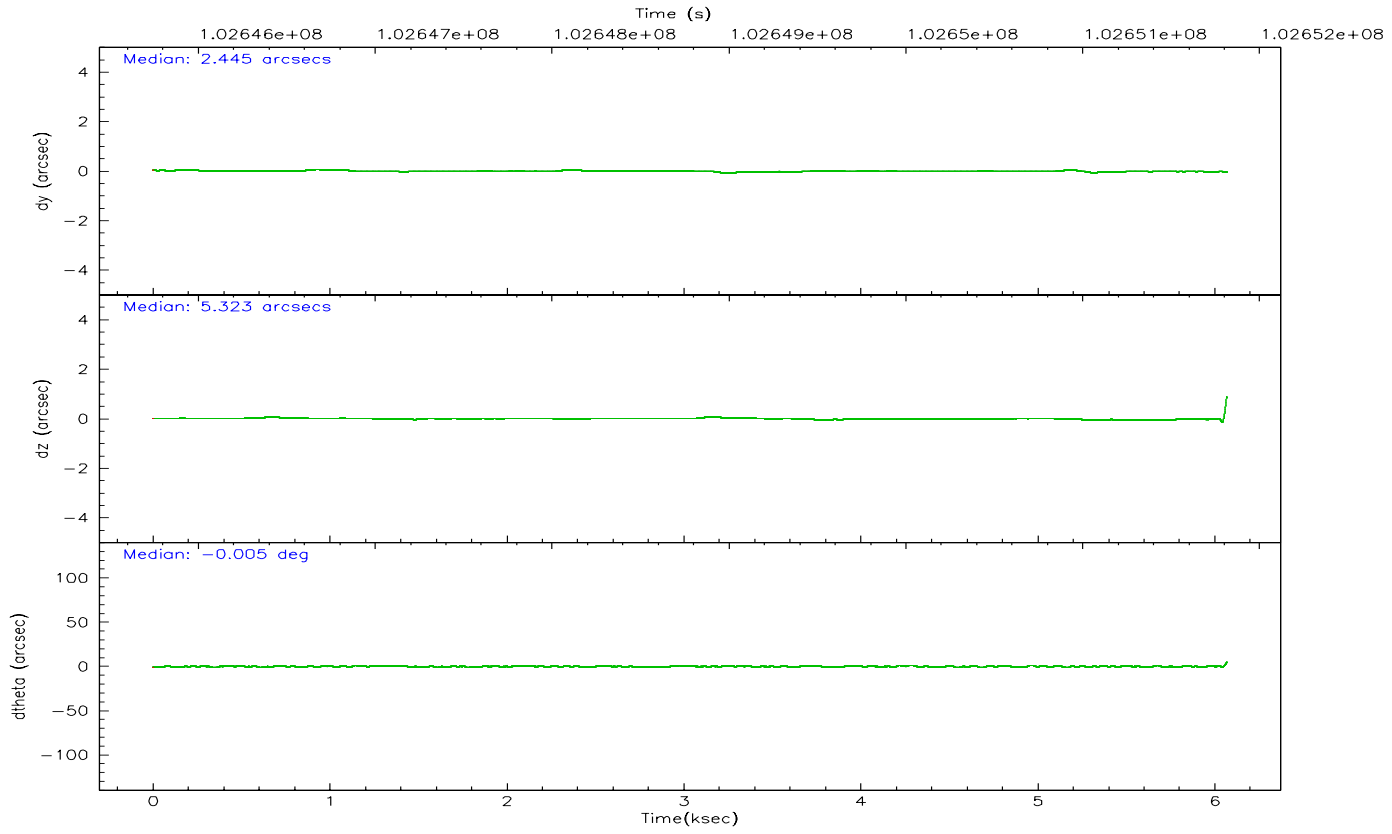
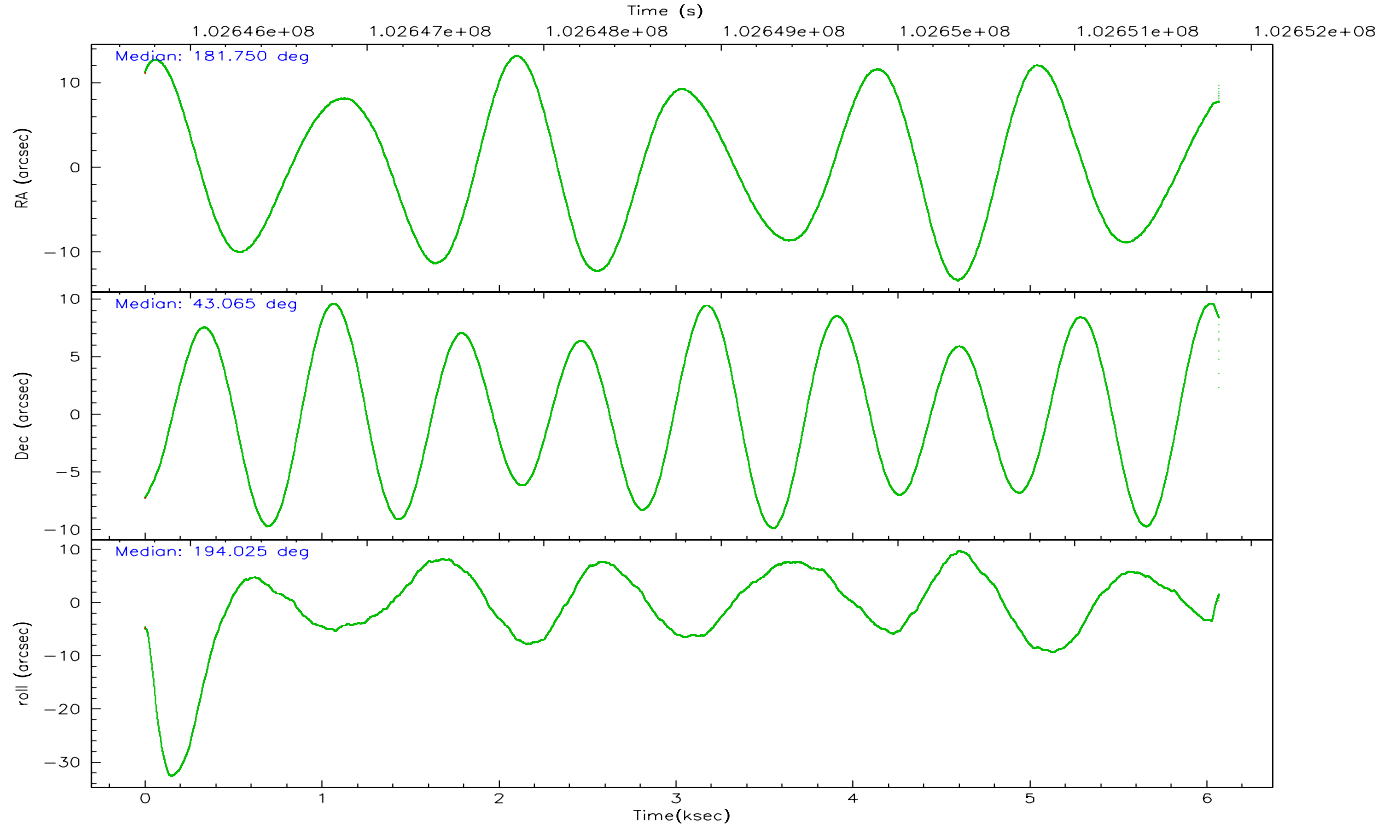
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	4829	4887	9816	4917	3873	12666
	7%	8%	16%	7%	8%	13%
grade 1 events	45	31	239	37	72	116
	0%	0%	0%	0%	0%	0%
grade 2 events	1624	1277	11723	1531	7135	5455
	2%	2%	20%	2%	15%	5%
grade 3 events	718	768	2043	893	2751	4472
	1%	1%	3%	1%	5%	4%
grade 4 events	770	702	2075	855	2747	3888
	1%	1%	3%	1%	5%	4%
grade 5 events	748	837	3181	892	3043	1382
	1%	1%	5%	1%	6%	1%
grade 6 events	1146	1027	12504	1187	13390	6090
	1%	1%	21%	1%	28%	6%
grade 7 events	59062	49111	16203	57874	14074	58310
	85%	83%	28%	84%	29%	63%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	181.776582	181.7499939307185	Subarray requested	1/2	1/2
Pointing Dec	43.083887	43.06471912390511	Subarray start row	0	257
Pointing Roll	193.857952	194.03280461696	Subarray row count	1024	512
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	0.000000	1.8
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	102646629.184000	102645323.47028			
Observation start date	2001-04-03T00:56:05	2001-04-03T00:35:23			
Observation end time	102660429.184000	102651829.65803			
Observation end date	2001-04-03T04:46:05	2001-04-03T02:23:49			
Read mode	TIMED	TIMED			

2.3 Aspect



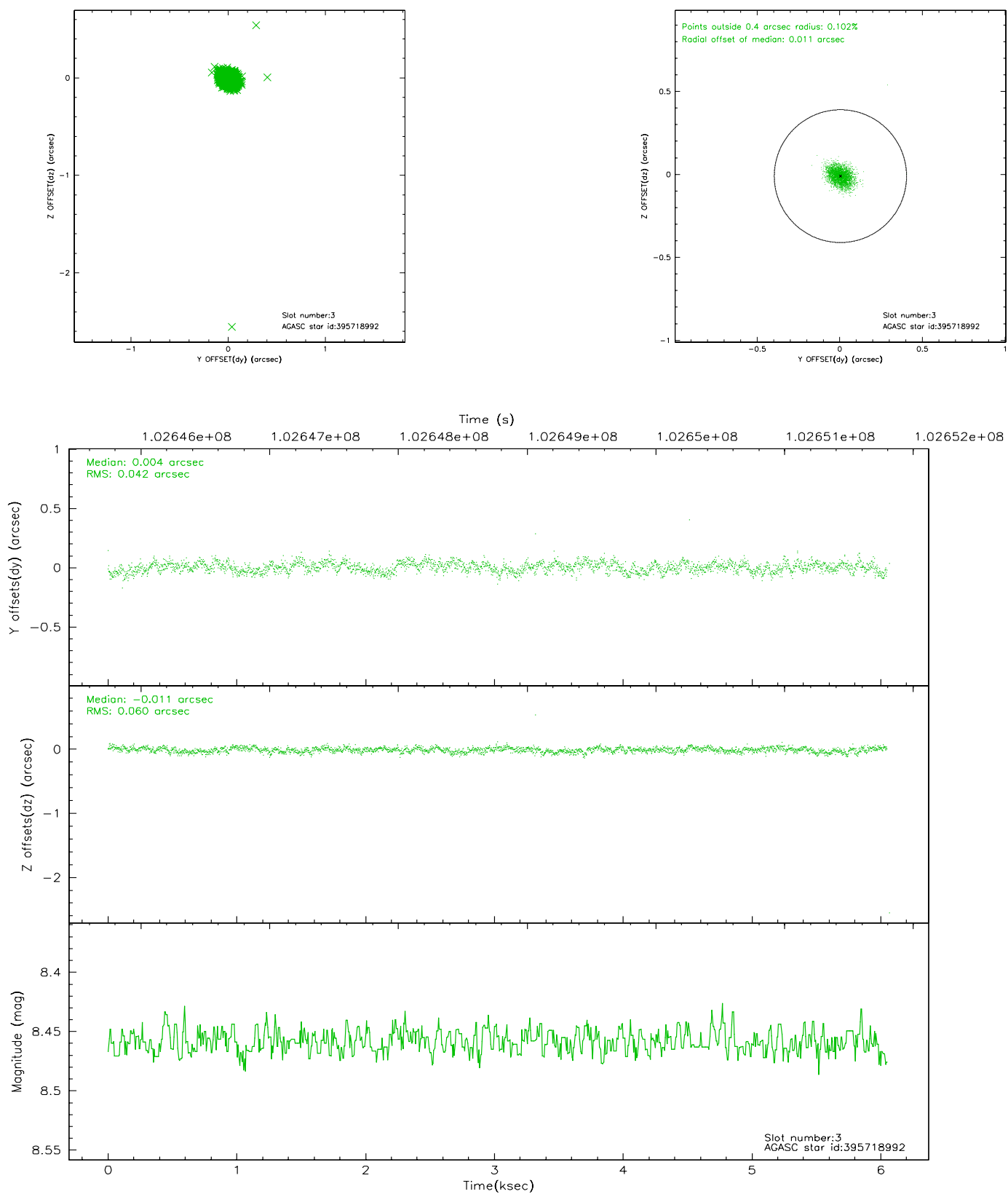


Slot Statistics

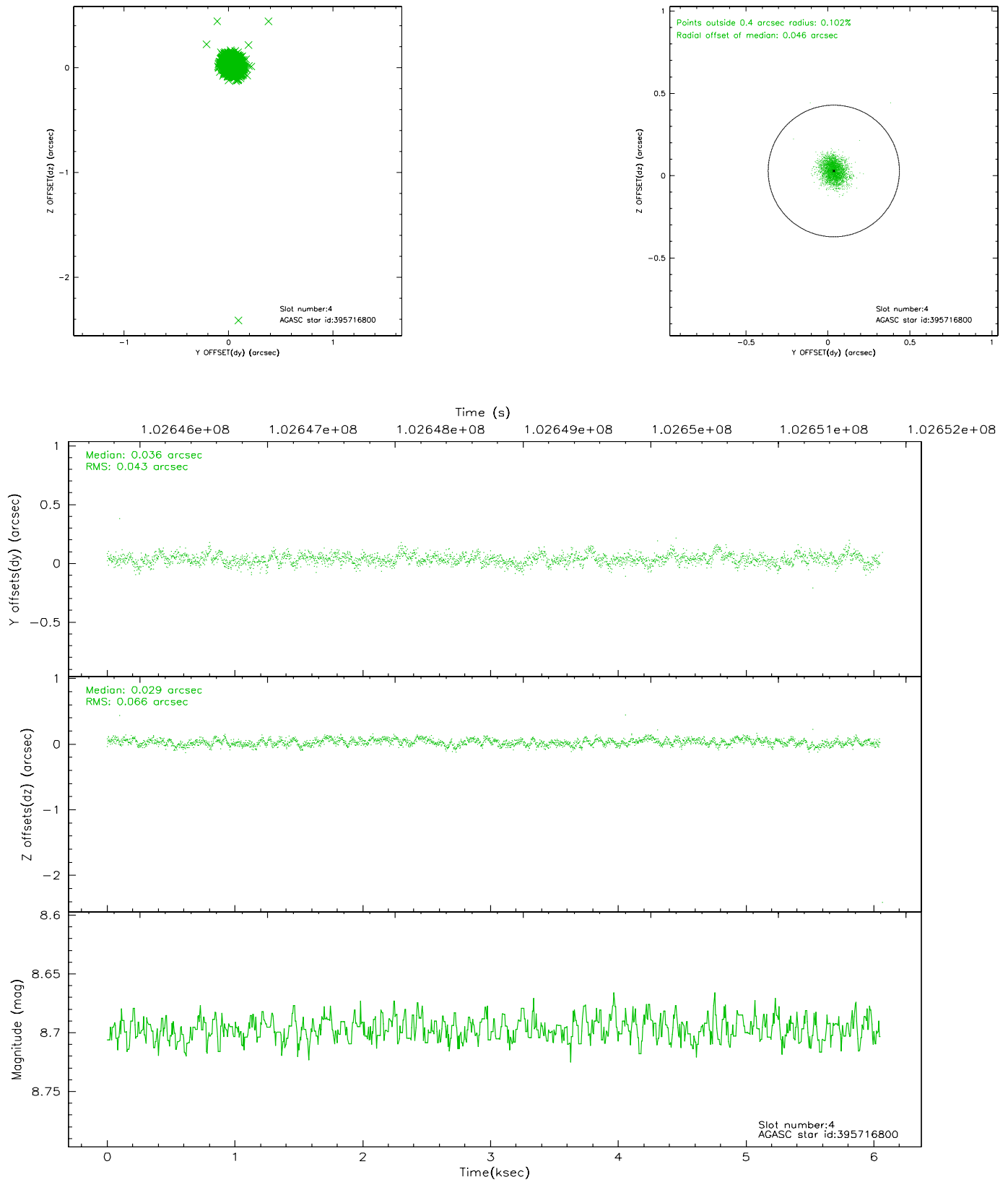
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	1480	-0.026	0.017	0.006	0.011	0.000000	0.000000	-755.05	-1726.45
1	FID	ACIS-S-4	7.20	1480	-0.063	0.008	0.005	0.009	0.000000	0.000000	2157.70	181.09
2	FID	ACIS-S-5	7.24	1480	0.058	-0.016	0.006	0.010	0.000000	0.000000	-1806.60	175.75
3	GUIDE	395718992	8.46	2951	0.004	-0.011	0.059	0.095	181.388768	43.164808	917.64	-529.11
4	GUIDE	395716800	8.70	2950	0.036	0.029	0.068	0.110	181.771352	42.659863	378.41	1478.41
5	GUIDE	395711504	9.46	2951	0.055	-0.083	0.083	0.131	181.167625	43.344906	1320.99	-1299.45
6	GUIDE	395718152	9.40	2949	-0.035	0.104	0.085	0.139	181.978934	42.765825	-245.66	1238.57
7	GUIDE	395715072	9.52	2945	-0.060	-0.038	0.084	0.144	182.150841	42.961754	-853.49	660.91

2.4 Star Slots

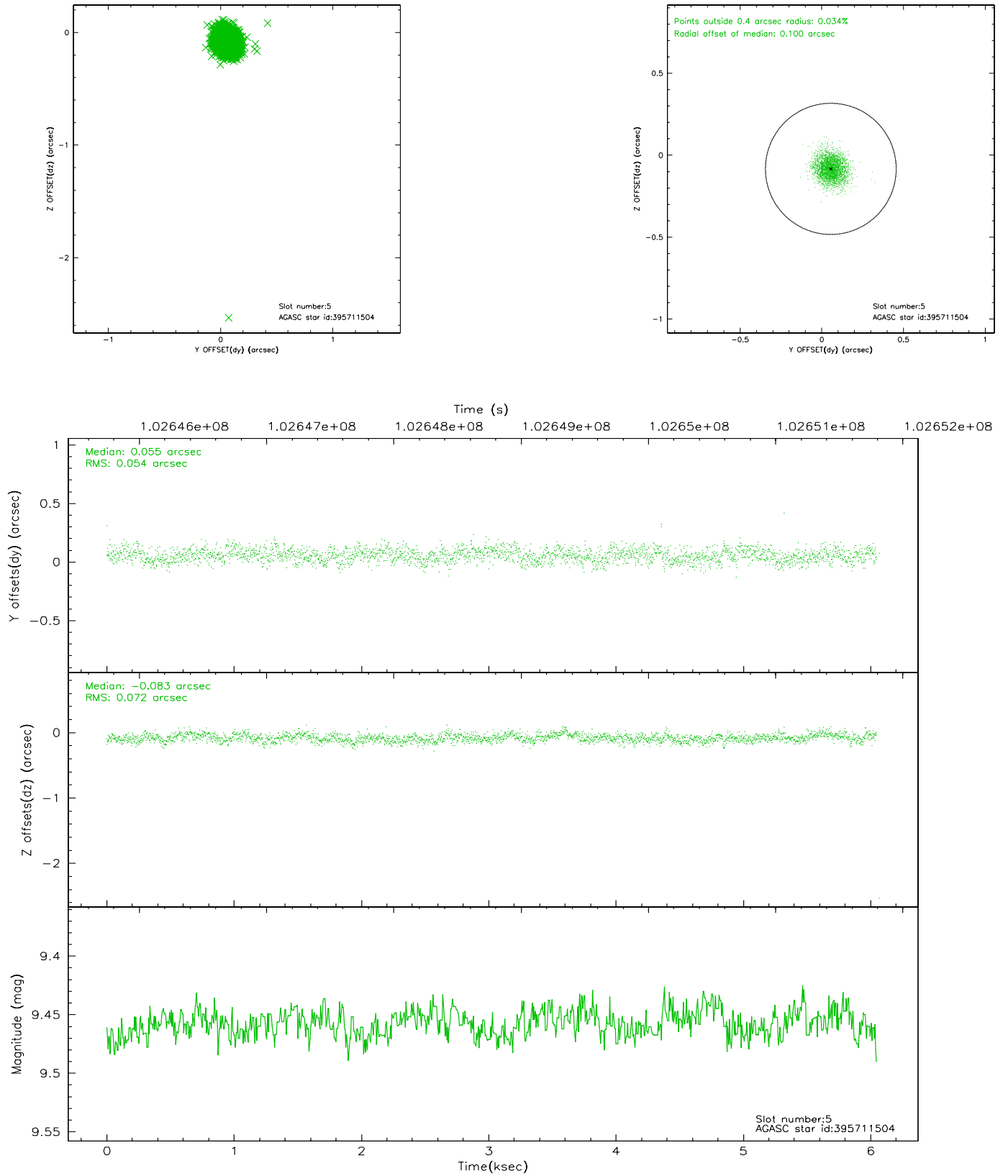
2.4.1 Slot 3



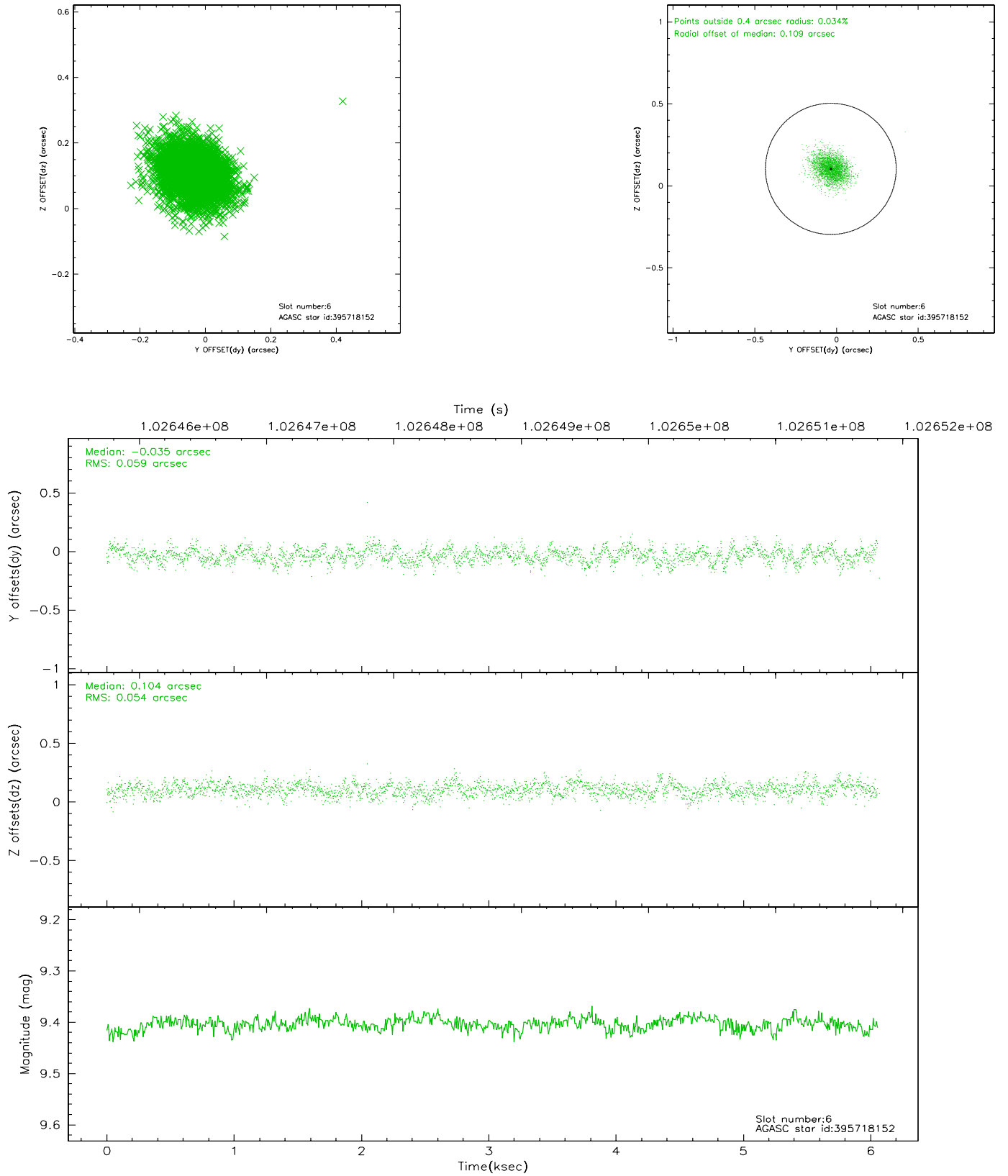
2.4.2 Slot 4



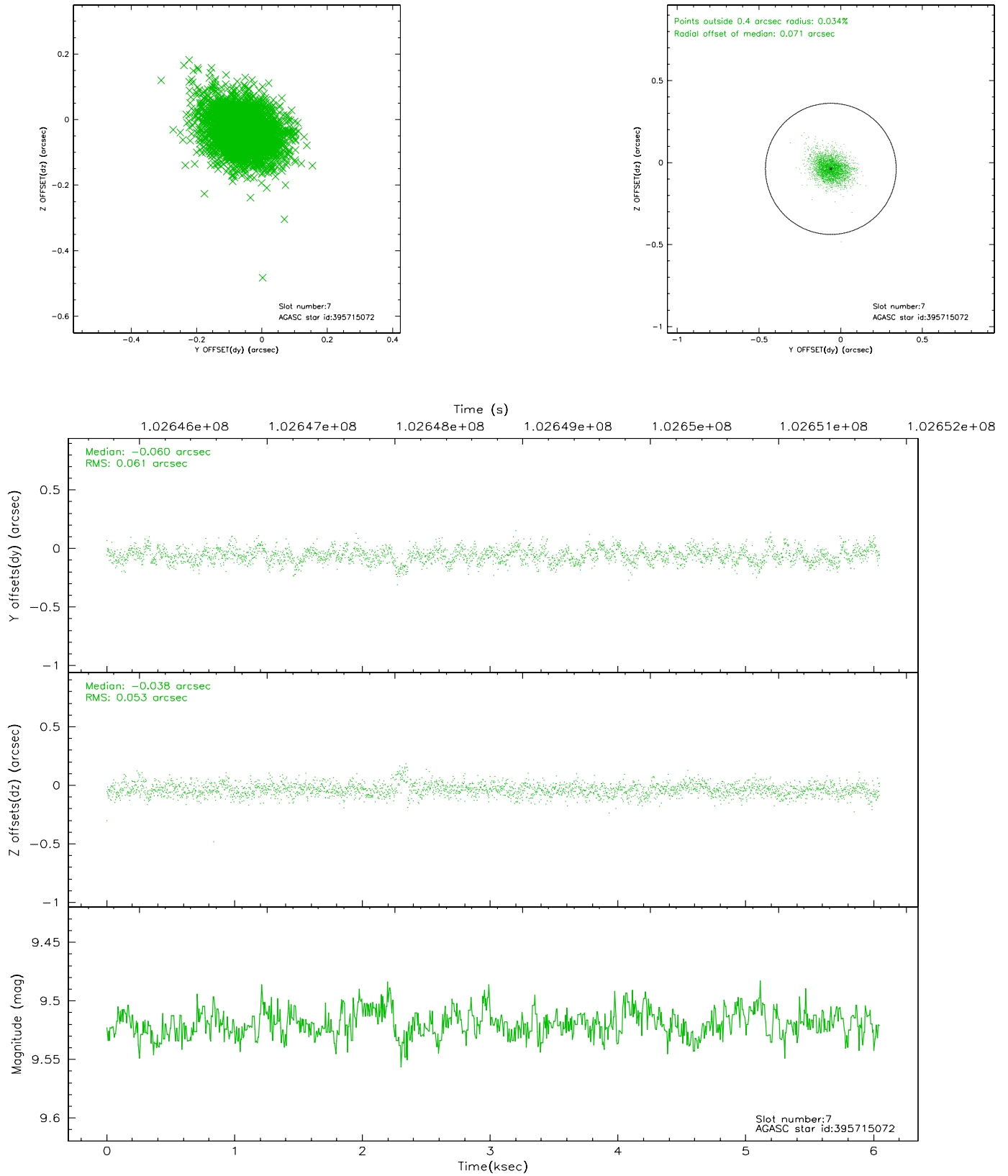
2.4.3 Slot 5



2.4.4 Slot 6

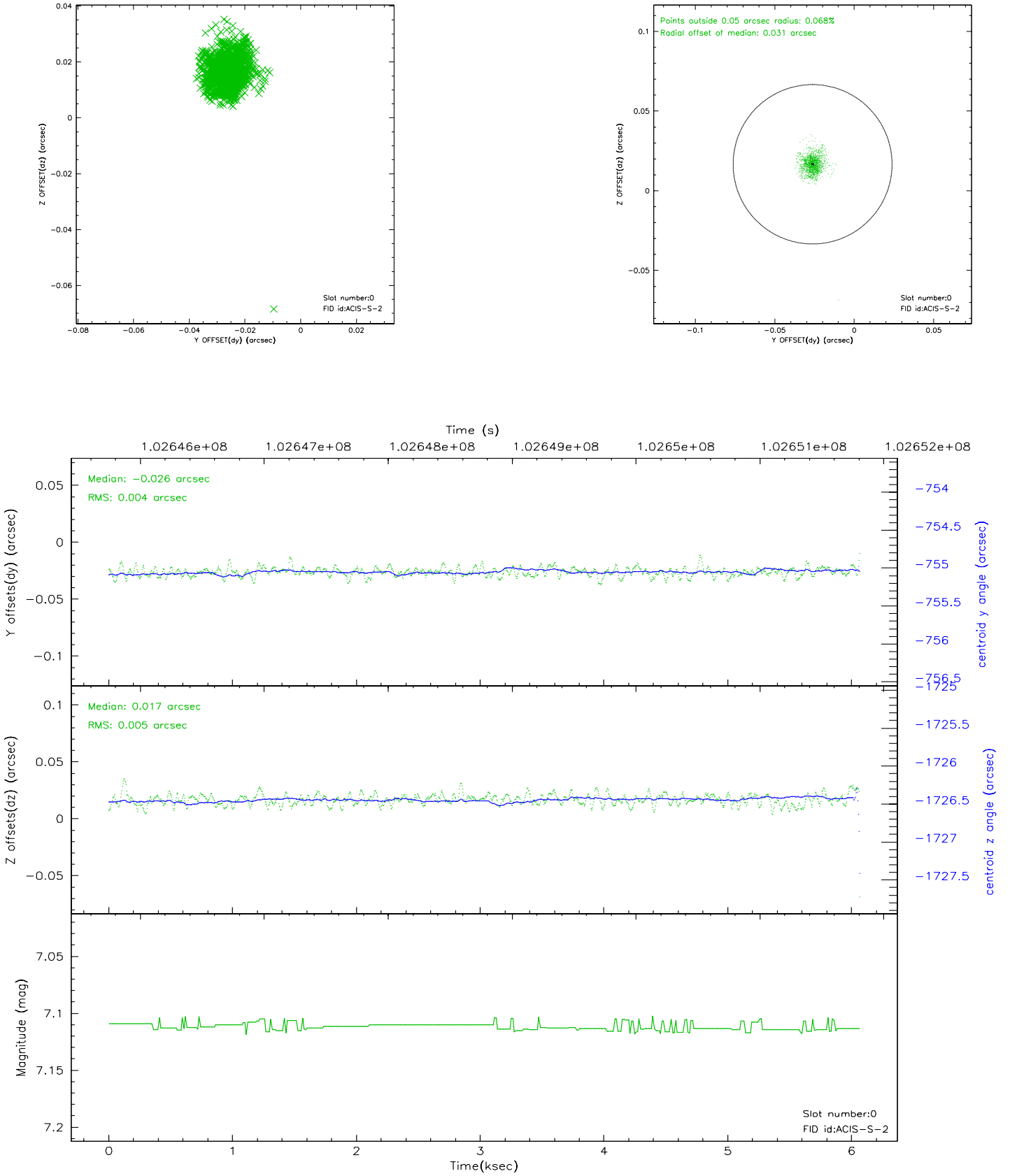


2.4.5 Slot 7

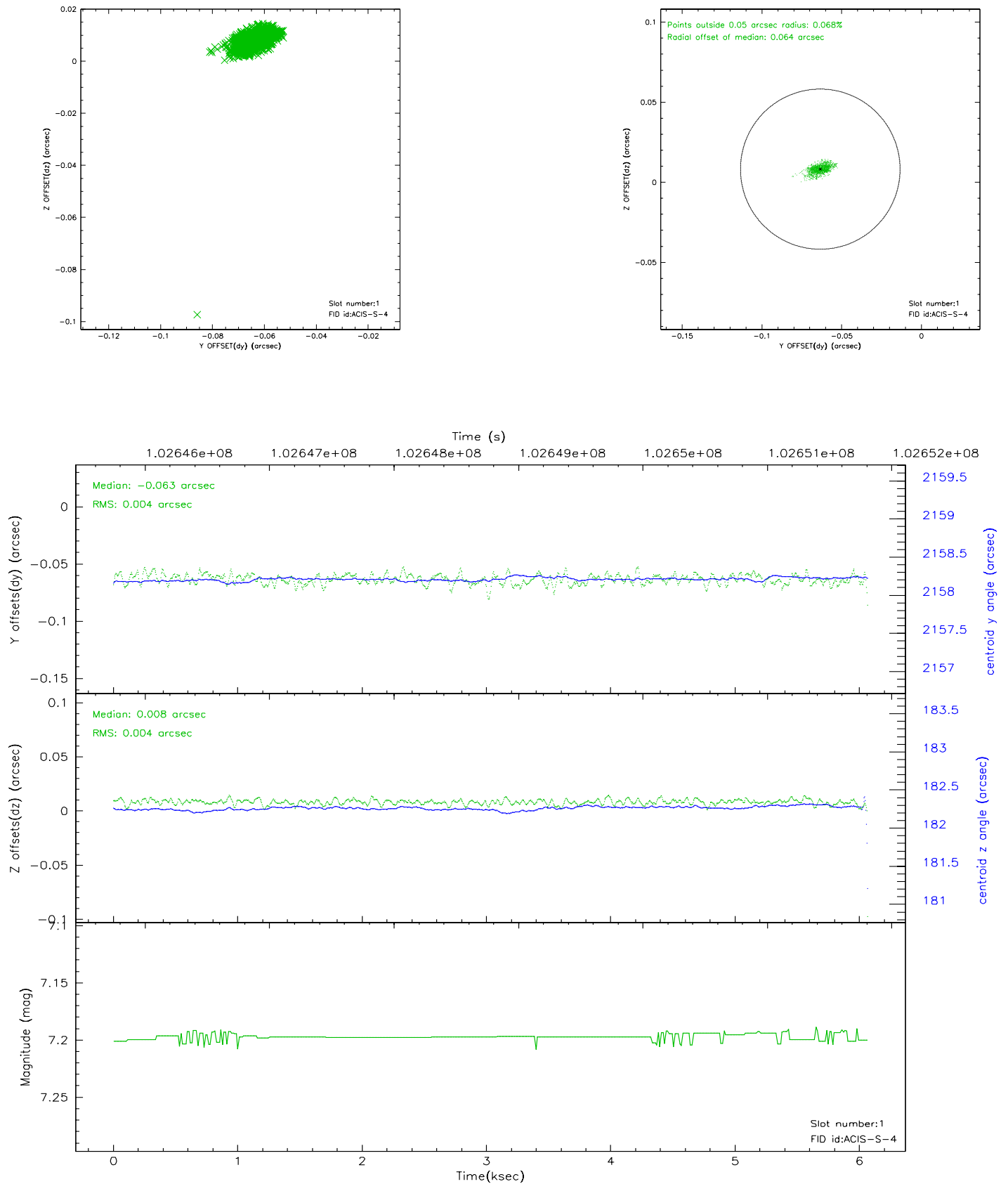


2.5 FID Slots

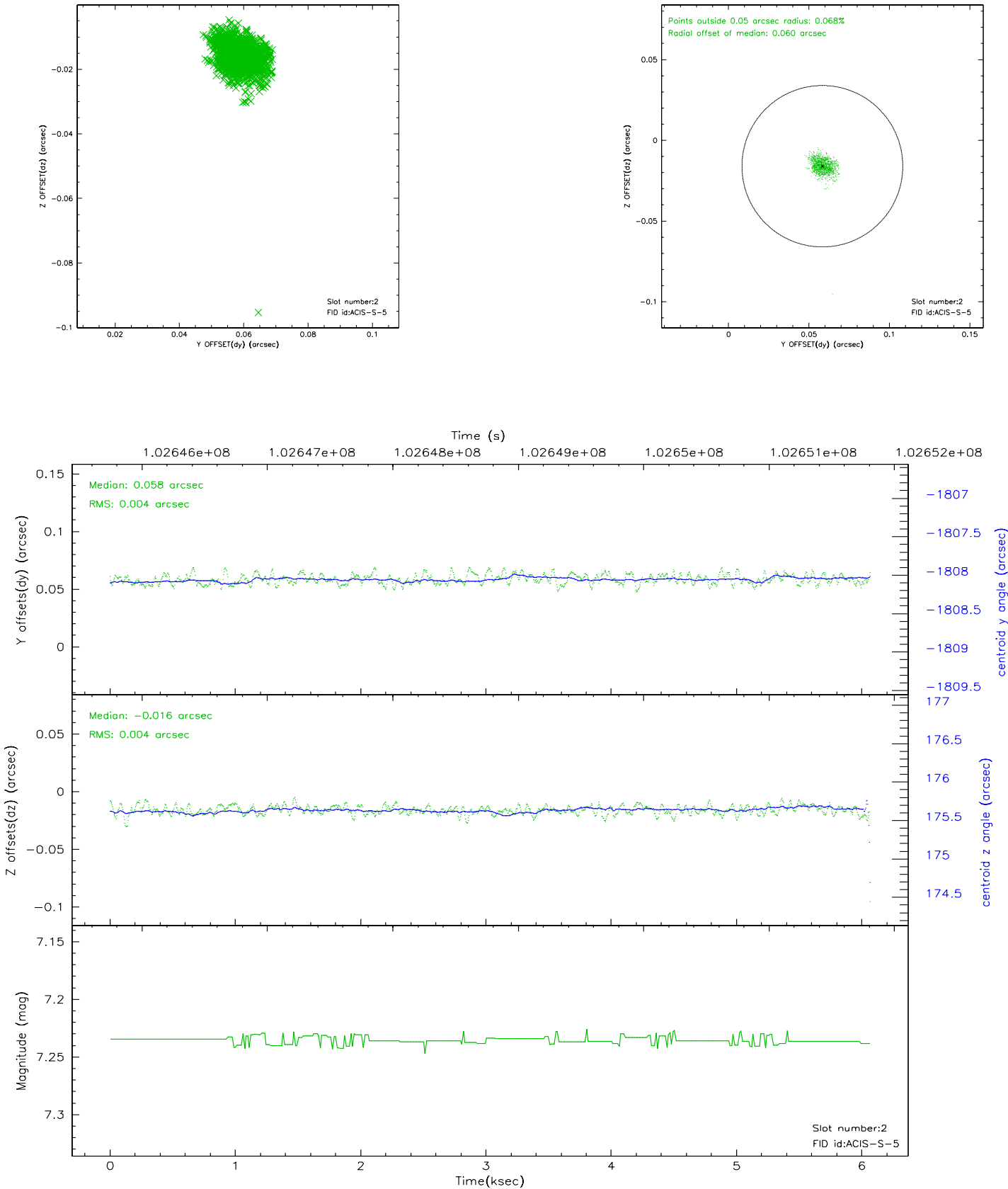
2.5.1 Slot 0



2.5.2 Slot 1



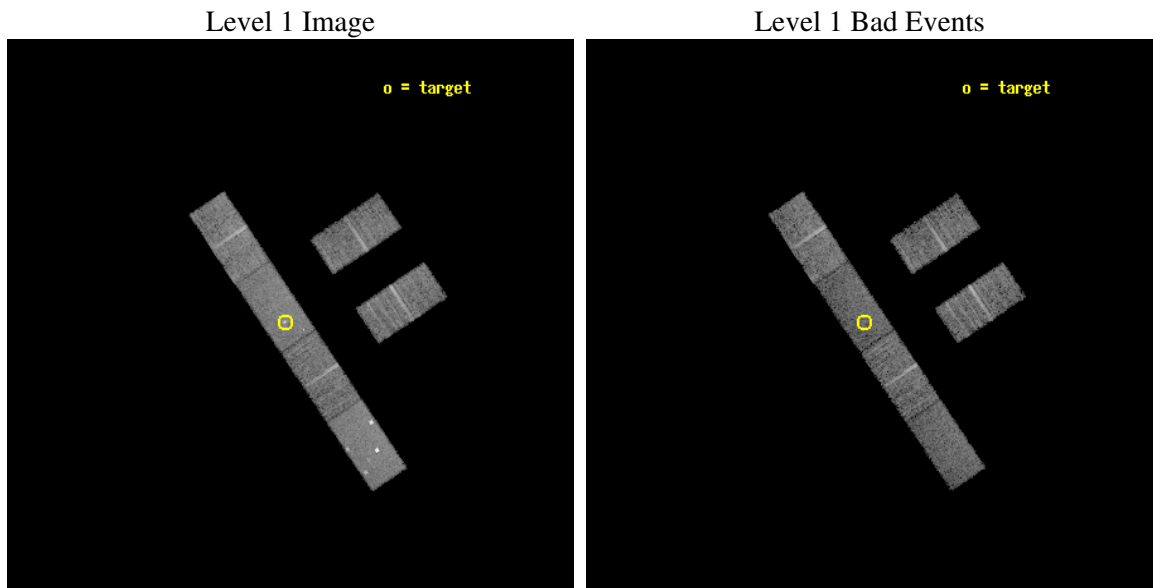
2.5.3 Slot 2



3 OBI

3.1 OBI

3.1.1 Images

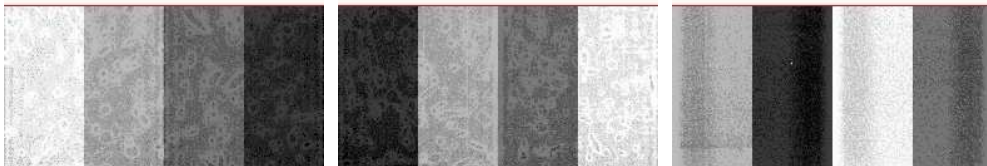


3.1.2 Bias

Chip 2

Chip 3

Chip 5



Chip 6

Chip 7

Chip 8



3.1.3 Parameters

obi_num	2
ascdsver	7.6.10
caldbver	3.3.0
date	2007-01-23T01:39:09
revision	2

sched_exp_time	9449.000000
ontime	9550.7999841869
ontime2	9550.7999841869
ontime3	9550.7999841869
ontime5	9550.7999841869
ontime6	9550.7999841869
ontime7	9550.7999841869
ontime8	9550.7999841869
l1events	273174

3.1.4 Events

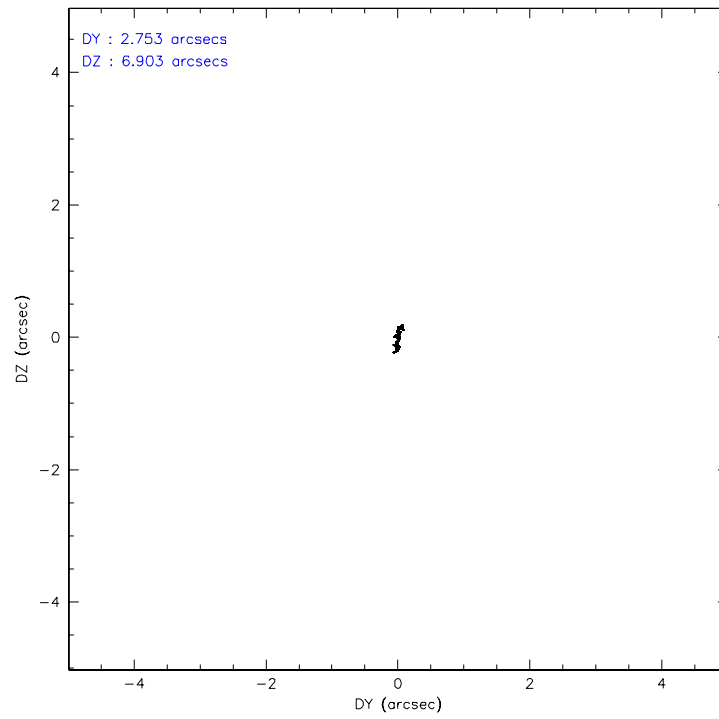
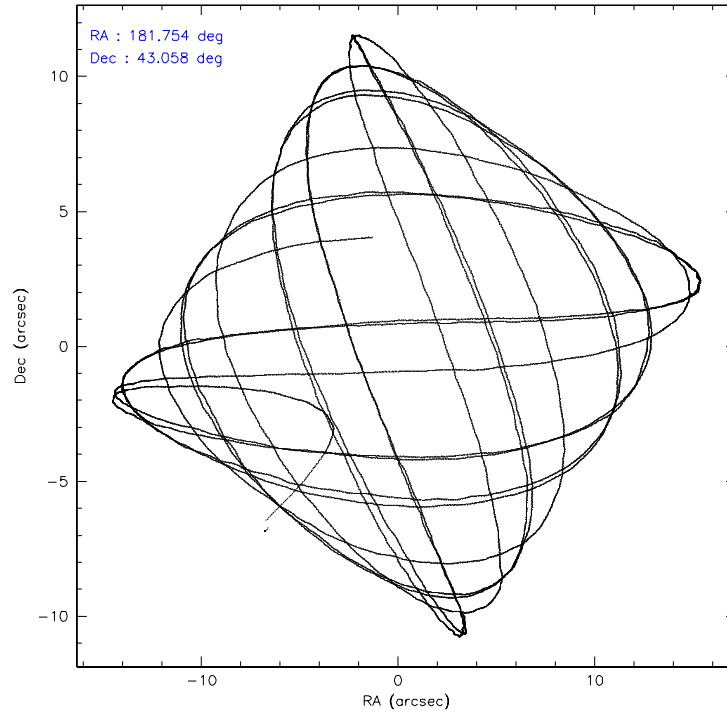
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	41811	37849	57110	38383	47662	50359
rejected events	37827	34213	31735	34629	29638	42151
rejected %	90%	90%	55%	90%	62%	83%

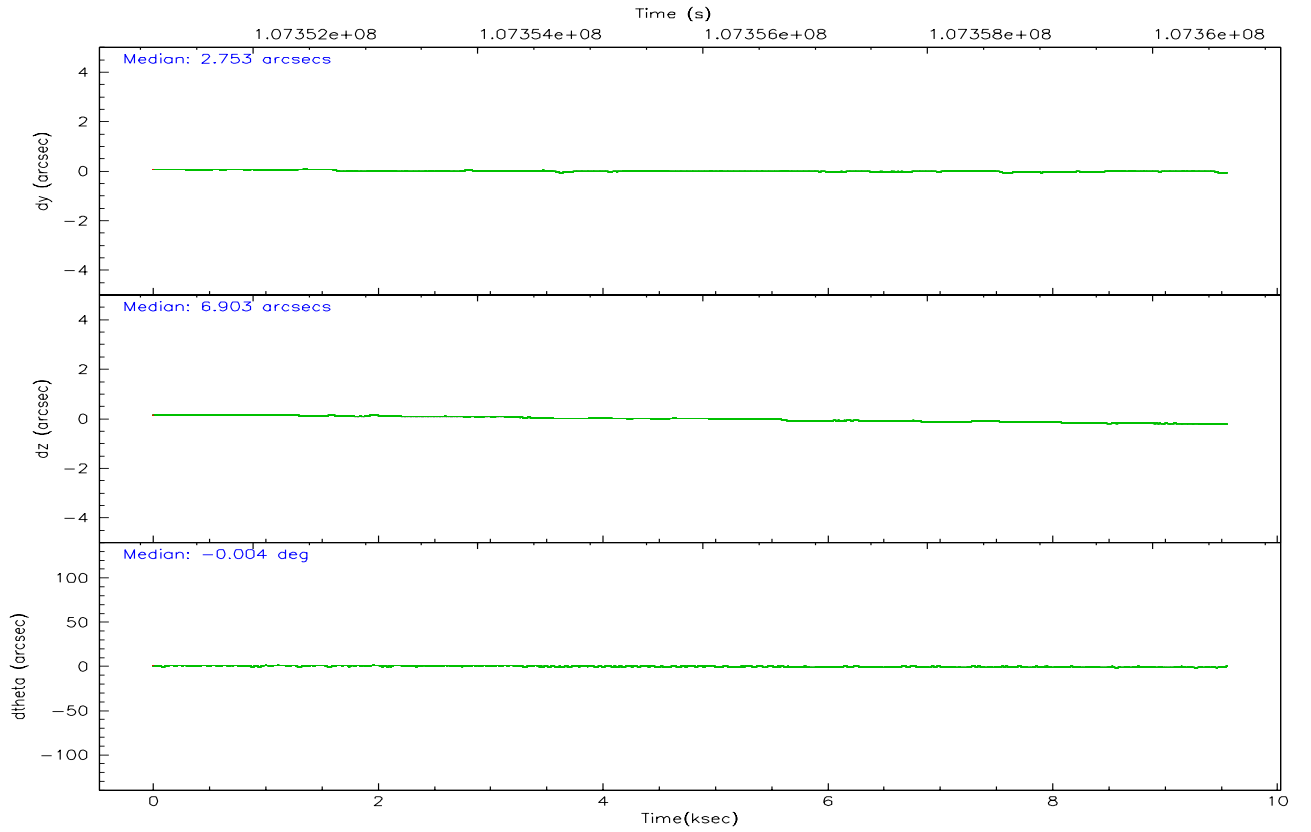
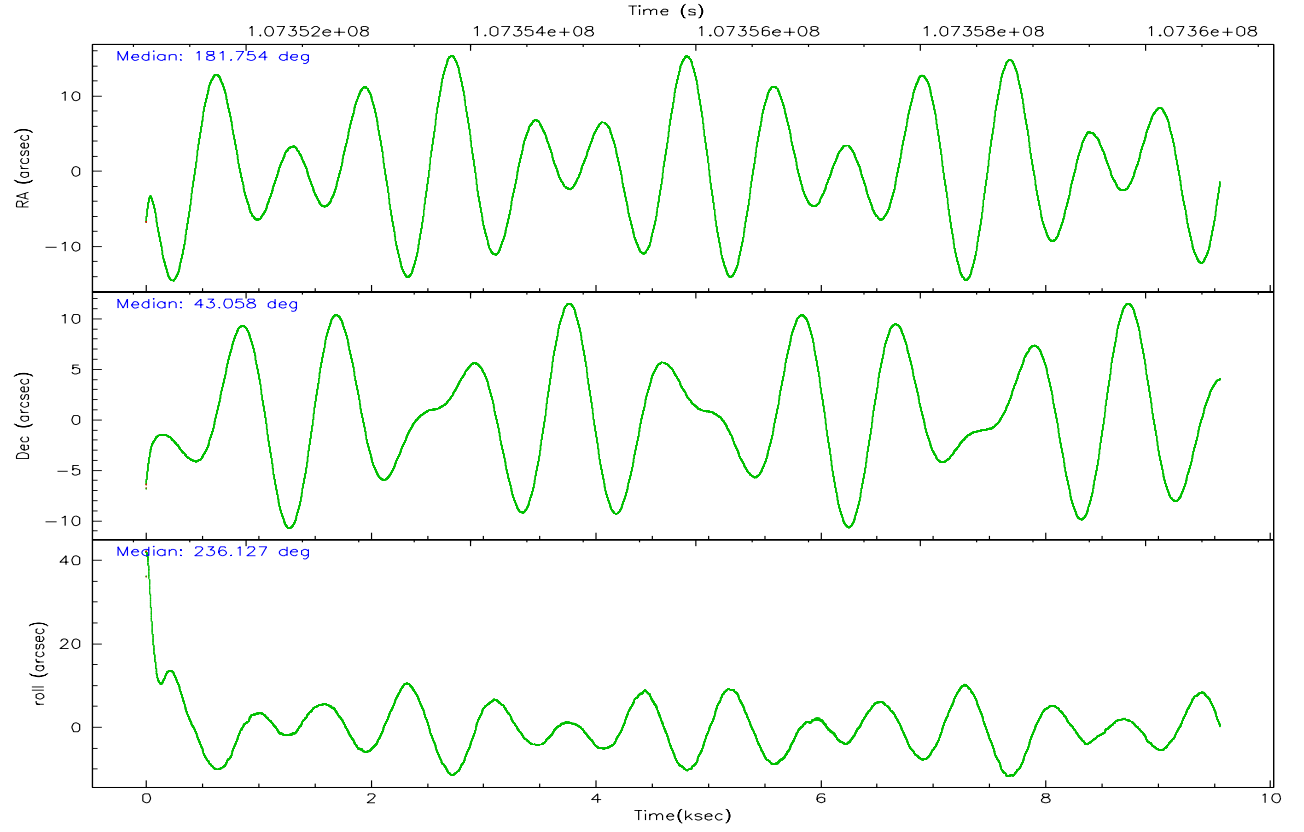
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	1962	1831	9226	1653	2444	2805
	4%	4%	16%	4%	5%	5%
grade 1 events	10	19	74	13	46	20
	0%	0%	0%	0%	0%	0%
grade 2 events	954	744	6601	878	4186	2030
	2%	1%	11%	2%	8%	4%
grade 3 events	476	501	1192	517	2075	1066
	1%	1%	2%	1%	4%	2%
grade 4 events	514	492	1102	534	2053	892
	1%	1%	1%	1%	4%	1%
grade 5 events	1238	1326	4125	1520	4421	1970
	2%	3%	7%	3%	9%	3%
grade 6 events	754	751	11705	822	10275	2775
	1%	1%	20%	2%	21%	5%
grade 7 events	35903	32185	23085	32446	22162	38801
	85%	85%	40%	84%	46%	77%

3.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	181.756157	181.7538970365004	Subarray requested	1/2	1/2
Pointing Dec	43.085600	43.05829969155101	Subarray start row	0	257
Pointing Roll	235.977827	236.136052366888	Subarray row count	1024	512
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	0.000000	1.8
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	107351214.184000	107349455.06537			
Observation start date	2001-05-27T11:45:50	2001-05-27T11:17:35			
Observation end time	107360663.184000	107361143.65333			
Observation end date	2001-05-27T14:23:19	2001-05-27T14:32:23			
Read mode	TIMED	TIMED			

3.3 Aspect



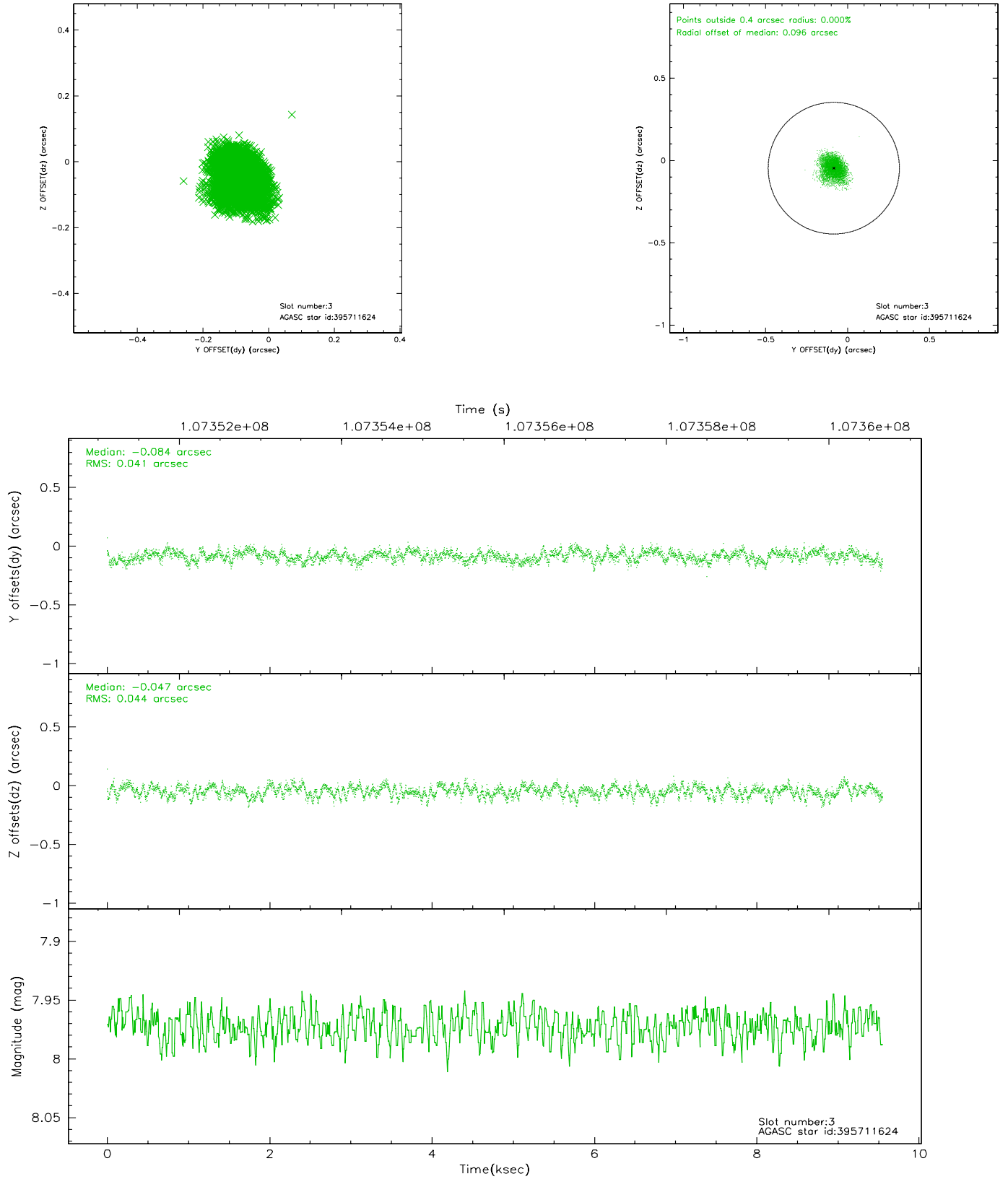


Slot Statistics

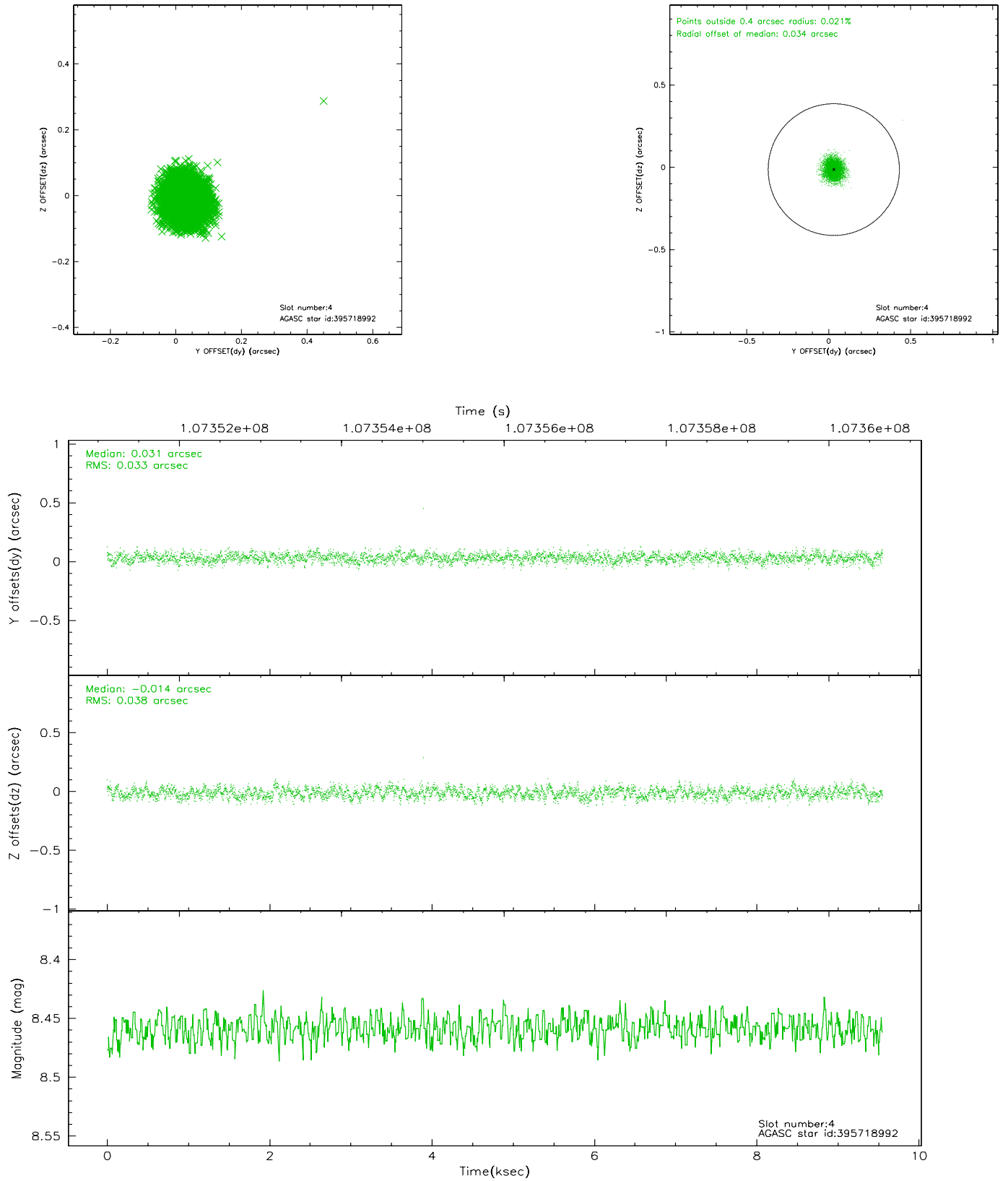
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	1480	-0.026	0.017	0.006	0.011	0.000000	0.000000	-755.05	-1726.45
1	FID	ACIS-S-4	7.20	1480	-0.063	0.008	0.005	0.009	0.000000	0.000000	2157.70	181.09
2	FID	ACIS-S-5	7.24	1480	0.058	-0.016	0.006	0.010	0.000000	0.000000	-1806.60	175.75
3	GUIDE	395718992	8.46	2951	0.004	-0.011	0.059	0.095	181.388768	43.164808	917.64	-529.11
4	GUIDE	395716800	8.70	2950	0.036	0.029	0.068	0.110	181.771352	42.659863	378.41	1478.41
5	GUIDE	395711504	9.46	2951	0.055	-0.083	0.083	0.131	181.167625	43.344906	1320.99	-1299.45
6	GUIDE	395718152	9.40	2949	-0.035	0.104	0.085	0.139	181.978934	42.765825	-245.66	1238.57
7	GUIDE	395715072	9.52	2945	-0.060	-0.038	0.084	0.144	182.150841	42.961754	-853.49	660.91

3.4 Star Slots

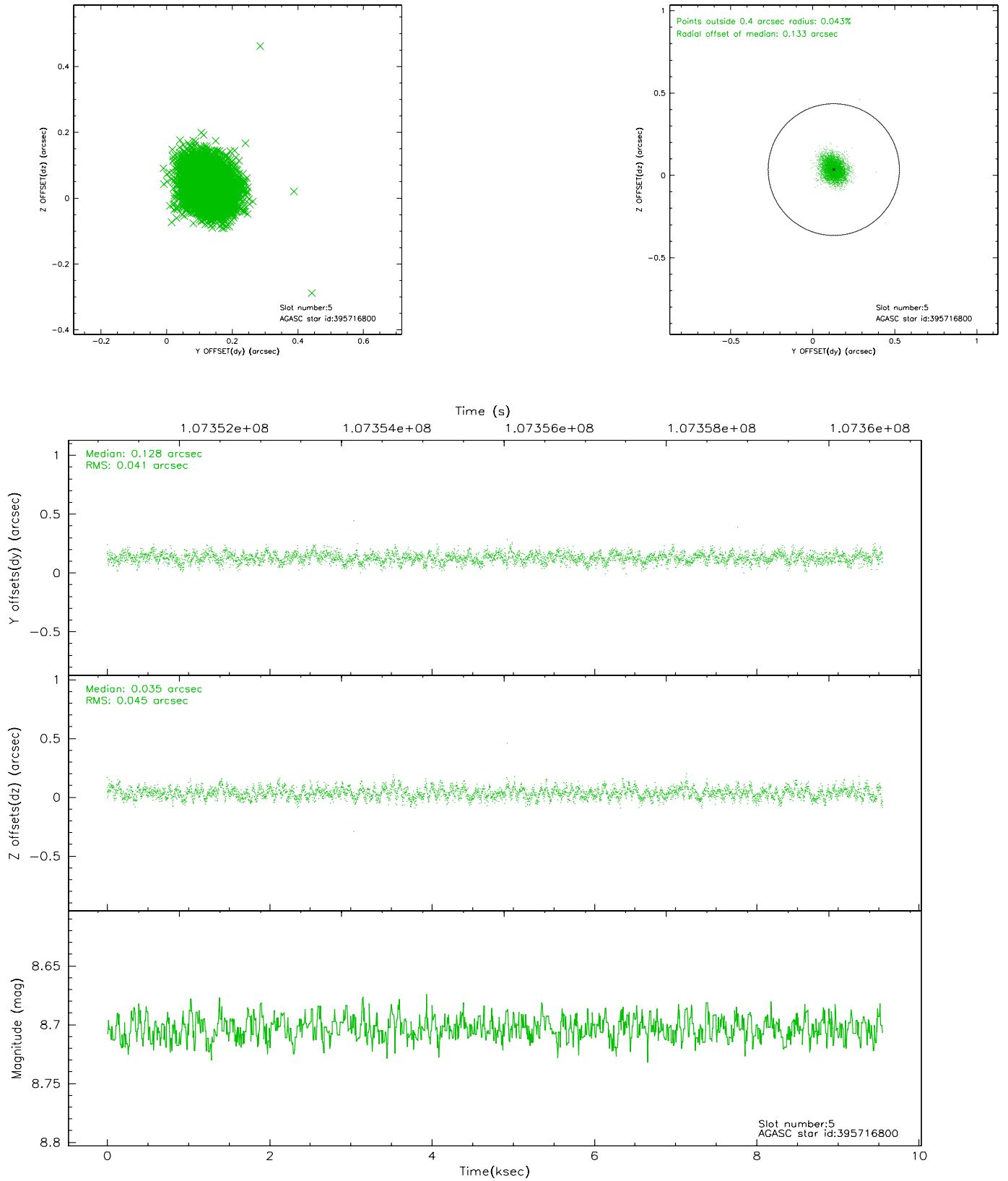
3.4.1 Slot 3



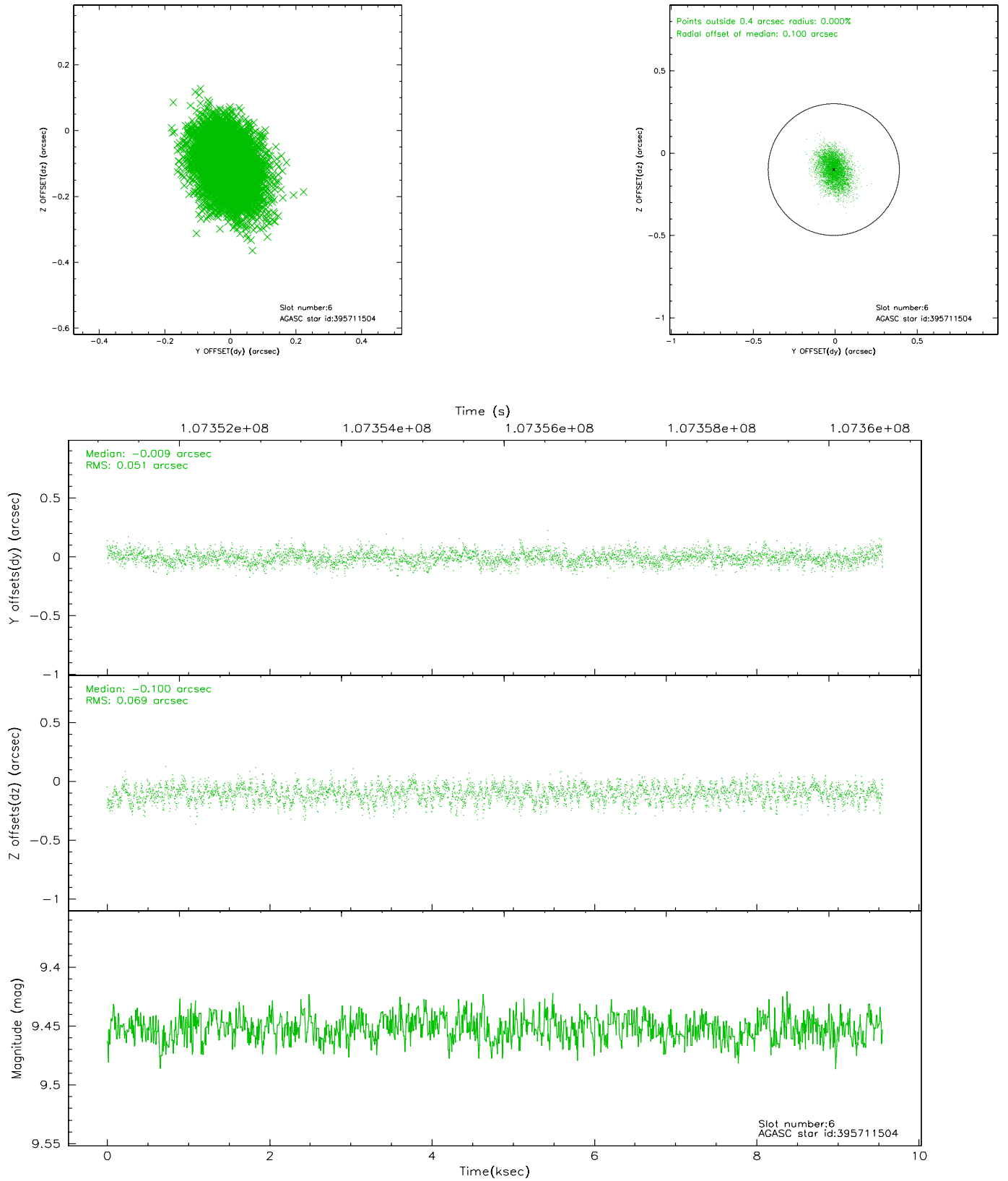
3.4.2 Slot 4



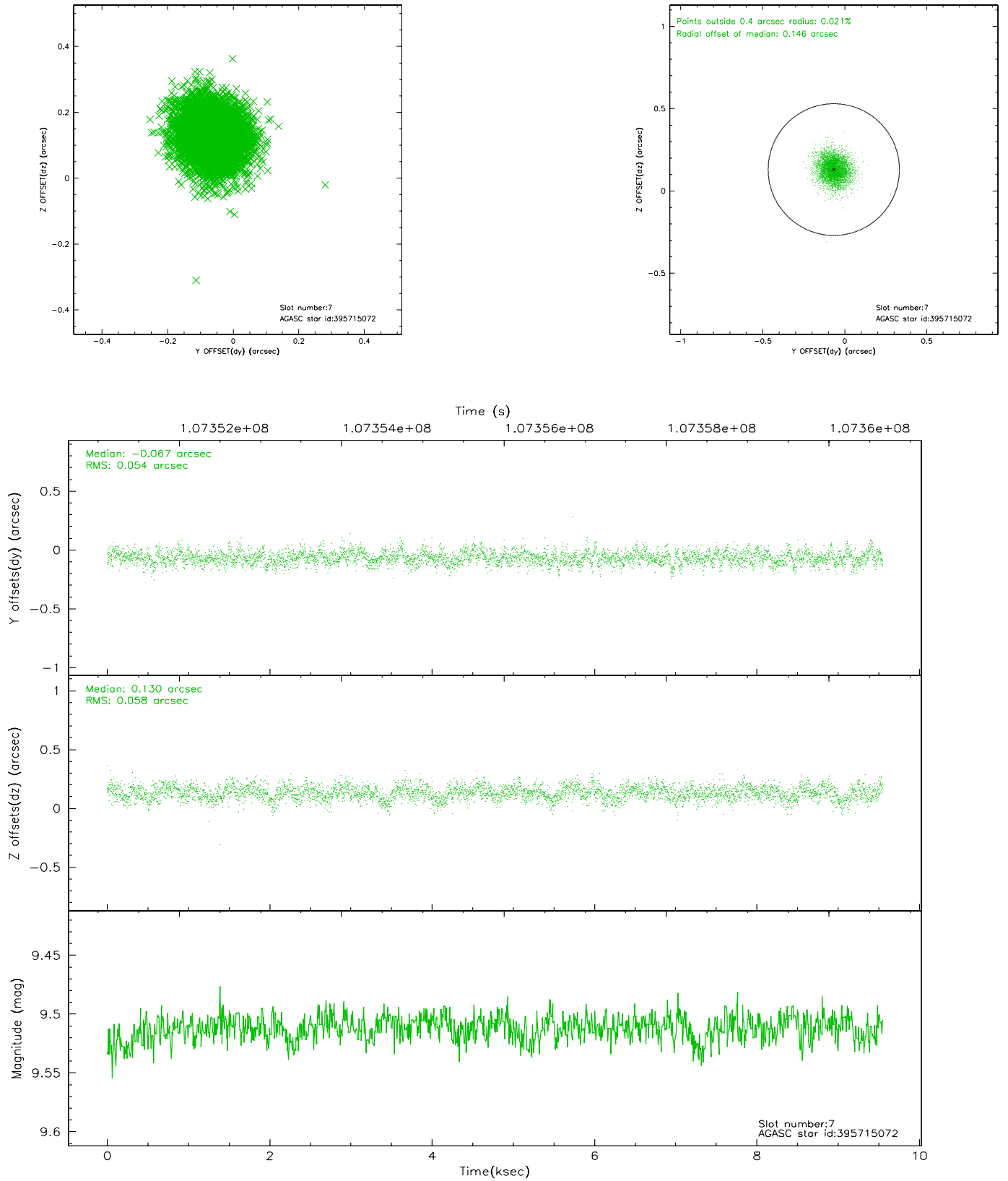
3.4.3 Slot 5



3.4.4 Slot 6

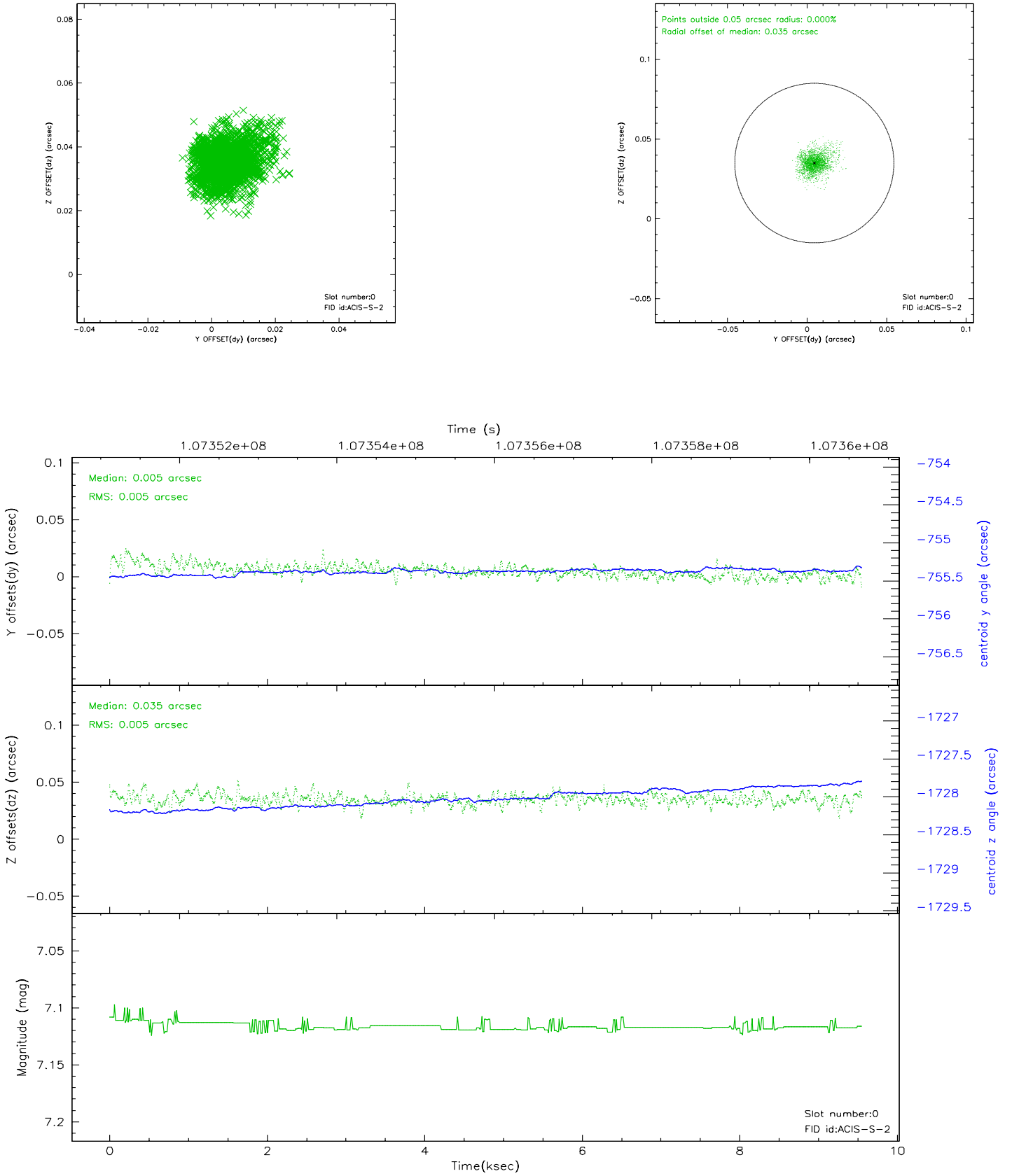


3.4.5 Slot 7

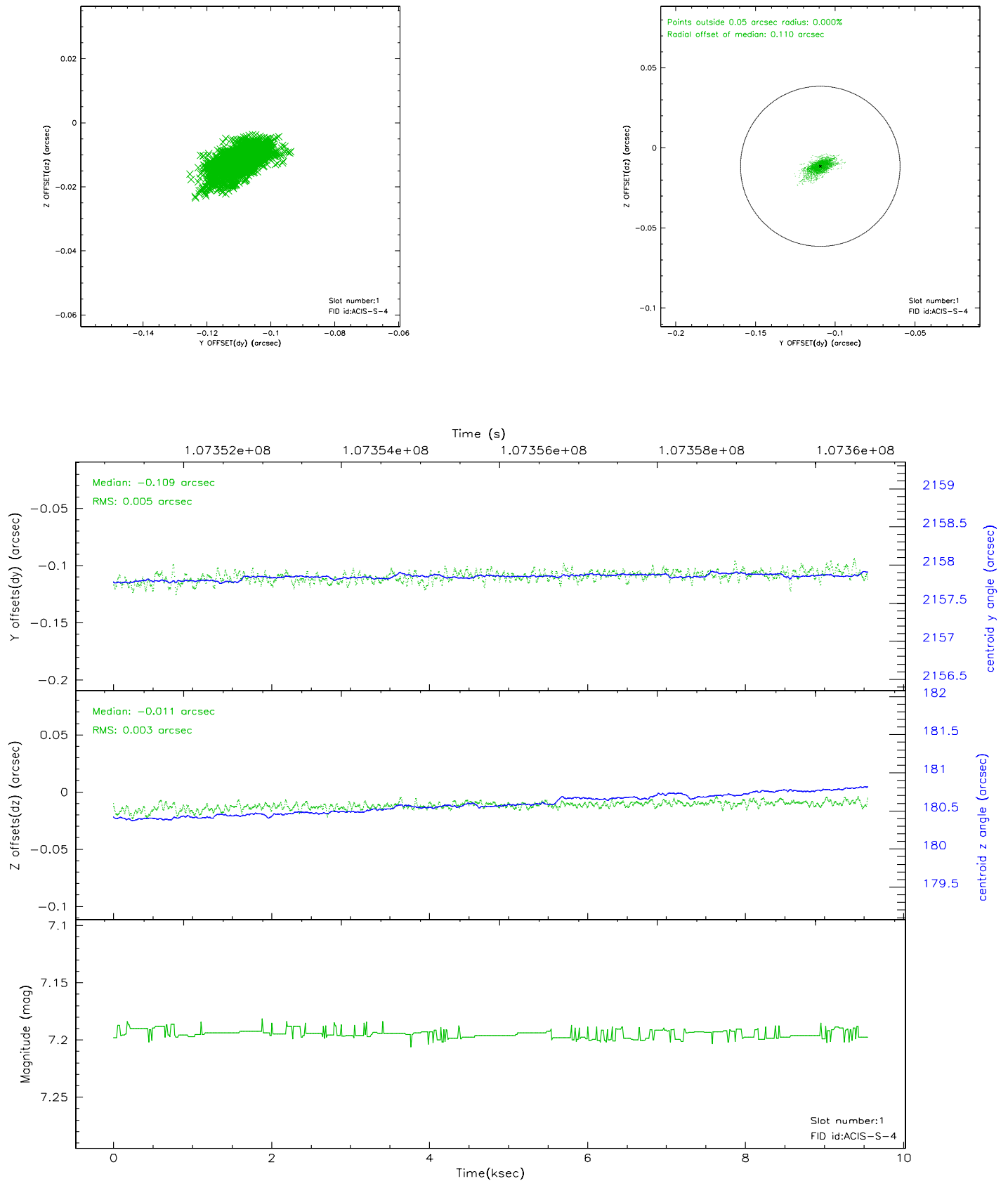


3.5 FID Slots

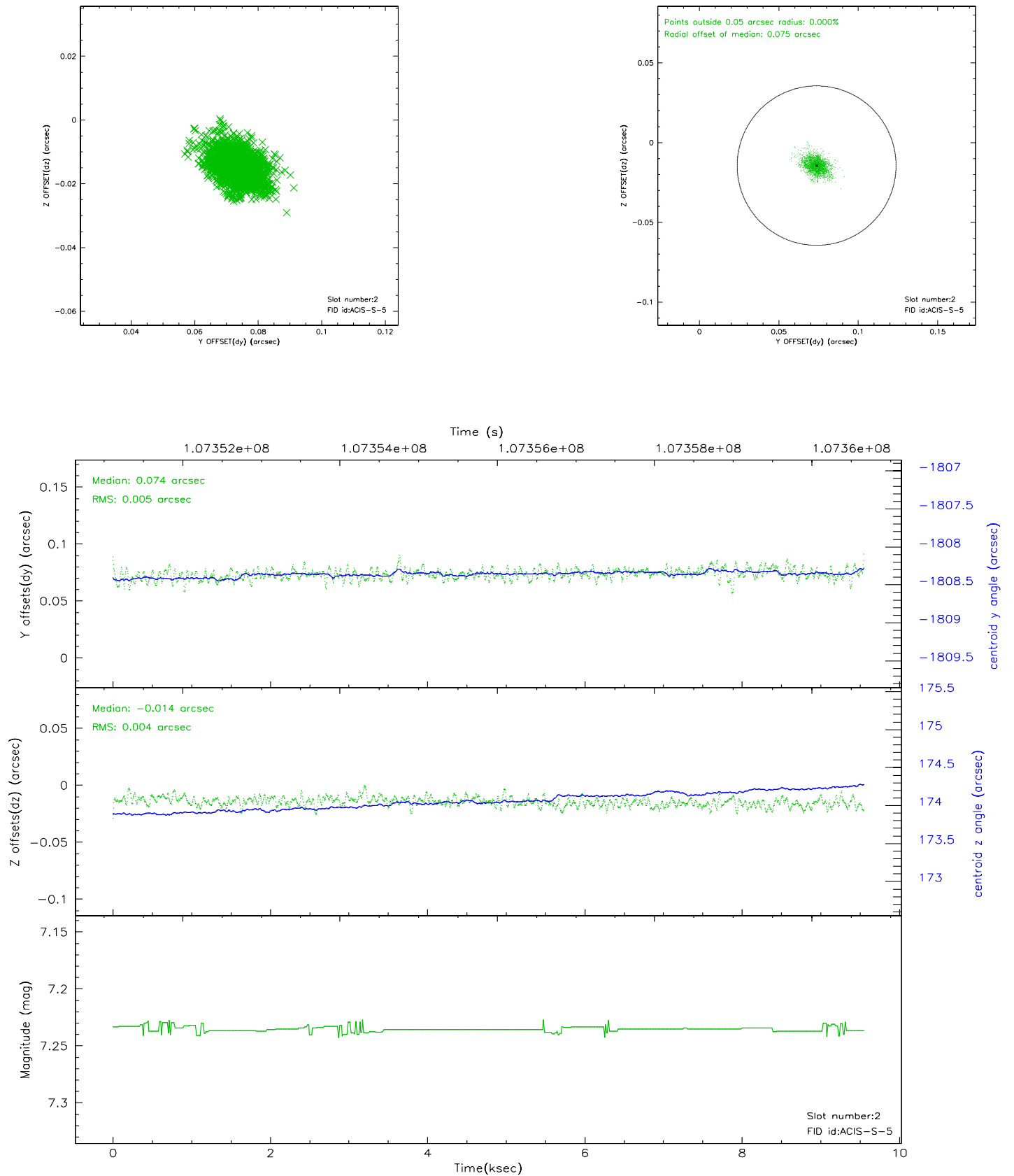
3.5.1 Slot 0



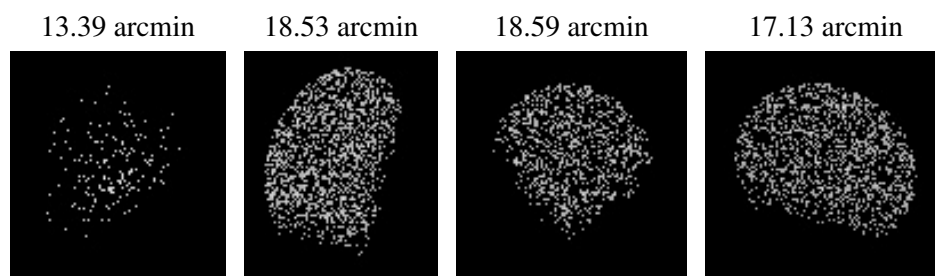
3.5.2 Slot 1



3.5.3 Slot 2



4 Point Sources



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.03.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15

A.2 Comments

This is a multi-obi observation. There are 2 component observations that have been combined in Level 2 processing.

The instruments were safed during obi=1 portion of this observation because of high radiation that tripped RADMON. Radmon Trip at day=93/02:22