

V&V Reference Report

L2 ASCDS Version : 8.5.1.1

Observation 1578 - L2 Version 5
Chandra X-Ray Center

L2 Processing Date : Feb 21 2013

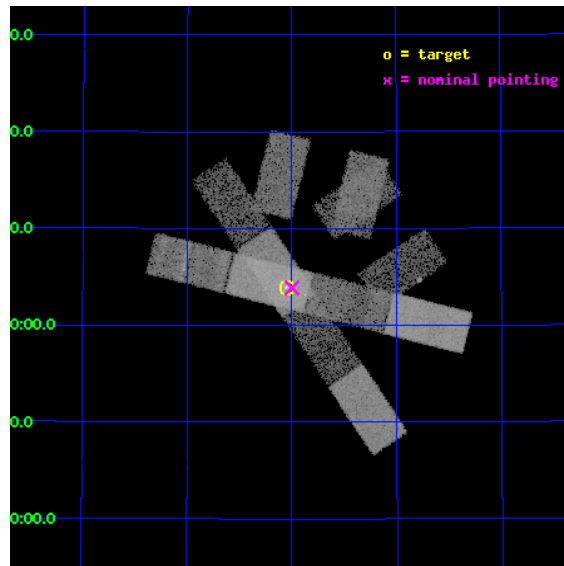
Contents

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

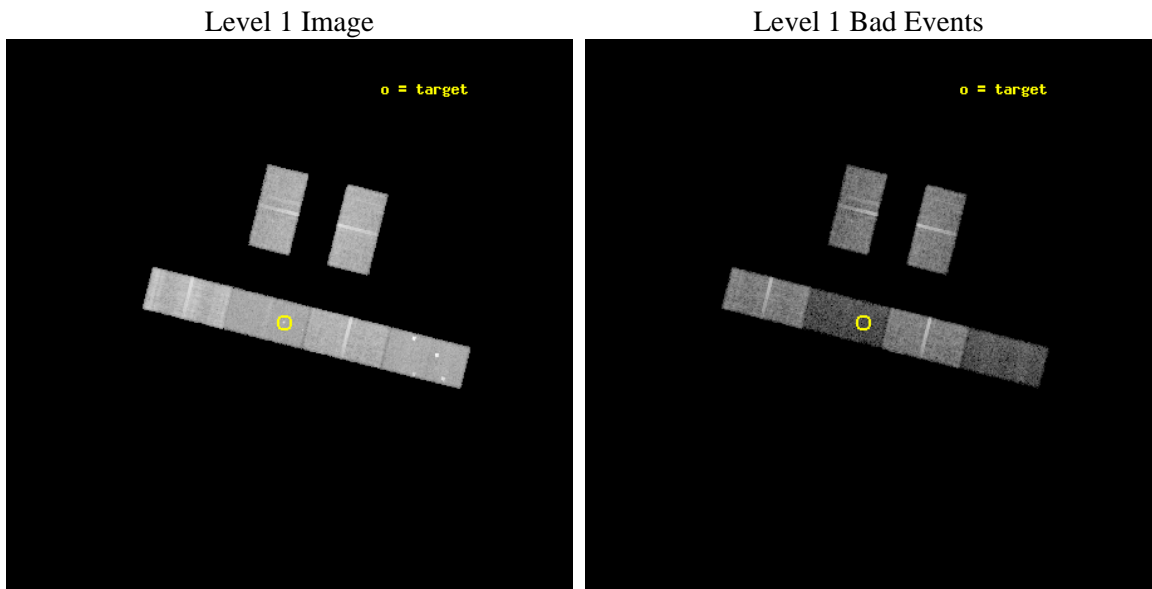
seq_num	600135	Sequence number
obs_id	1578	Observation id
title	INVESTIGATING THE CENTRAL ENGINES OF LINER 2S	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	NGC4111	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	181.763333	Observer's specified target RA [deg]
dec_targ	43.065361	Observer's specified target Dec [deg]
ra_nom	181.74998282915	Nominal RA [deg]
dec_nom	43.064695854921	Nominal Dec [deg]
roll_nom	194.03281202322	Nominal Roll [deg]
revision	5	Processing version of data
ontime	14601.599975854	Sum of GTIs [s]
livetime	14276.104786717	Livetime [s]
ontime2	14601.599975854	Sum of GTIs [s]
ontime3	14601.599975854	Sum of GTIs [s]
ontime5	14601.599975854	Sum of GTIs [s]
ontime6	14601.599975854	Sum of GTIs [s]
ontime7	14601.599975854	Sum of GTIs [s]
ontime8	14601.599975854	Sum of GTIs [s]
l2events	134566	Number of level 2 events



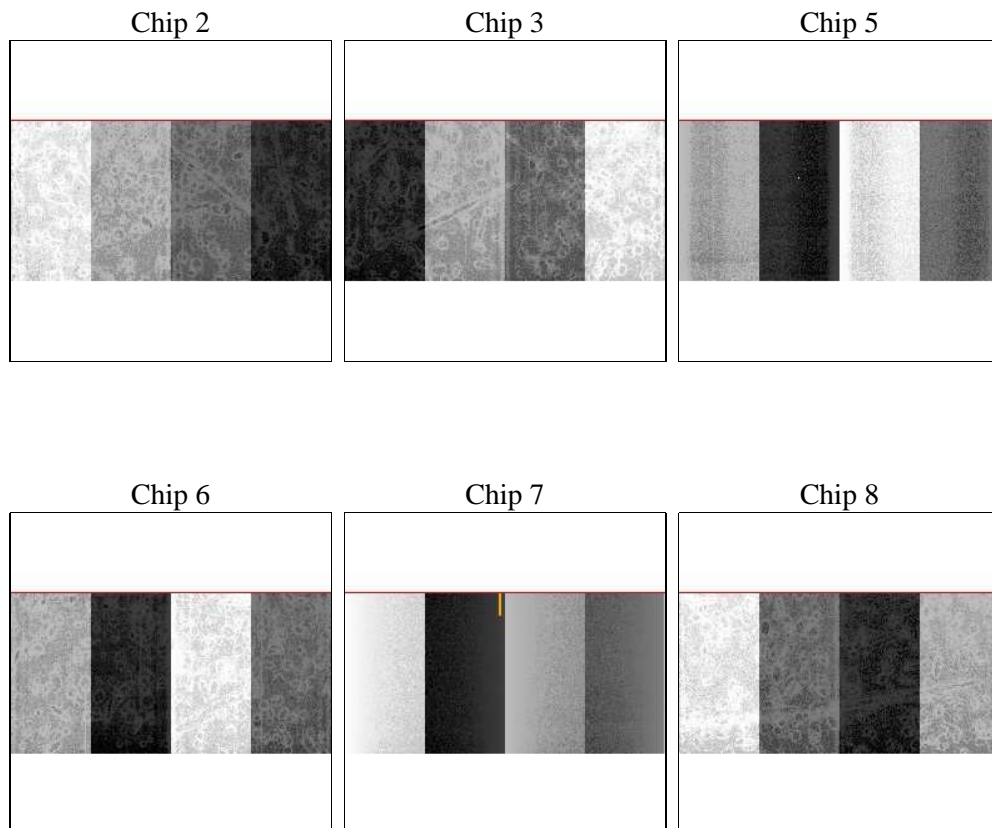
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	13800.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	5050.7999916524	Sum of GTIs [s]
caldbver	4.5.5	 	ontime2	5050.7999916524	Sum of GTIs [s]
date	2013-02-21T04:47:13	Date and time of file creation	ontime3	5050.7999916524	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	5050.7999916524	Sum of GTIs [s]
			ontime6	5050.7999916524	Sum of GTIs [s]
			ontime7	5050.7999916524	Sum of GTIs [s]
			ontime8	5050.7999916524	Sum of GTIs [s]
			l1events	367828	Number of level 1 events

2.1.4 Events

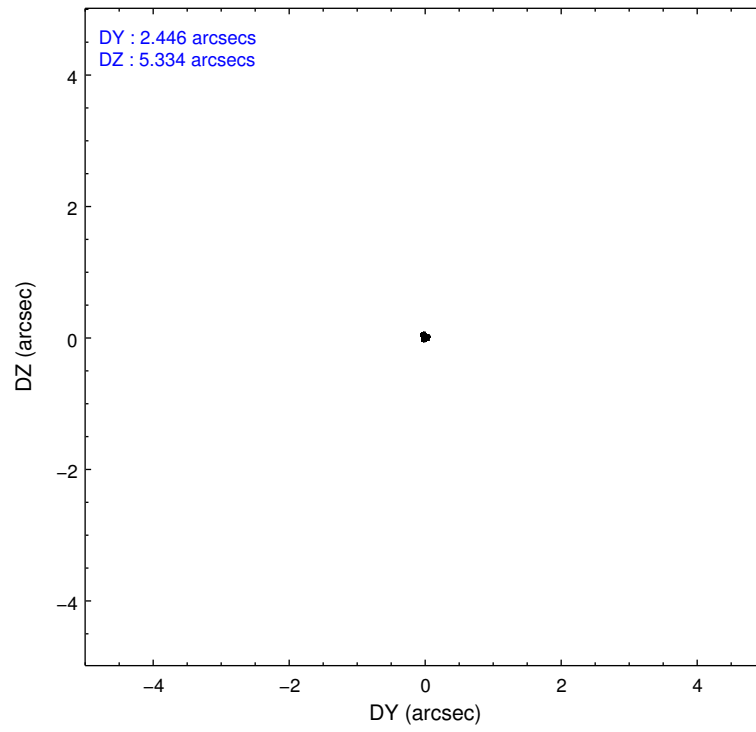
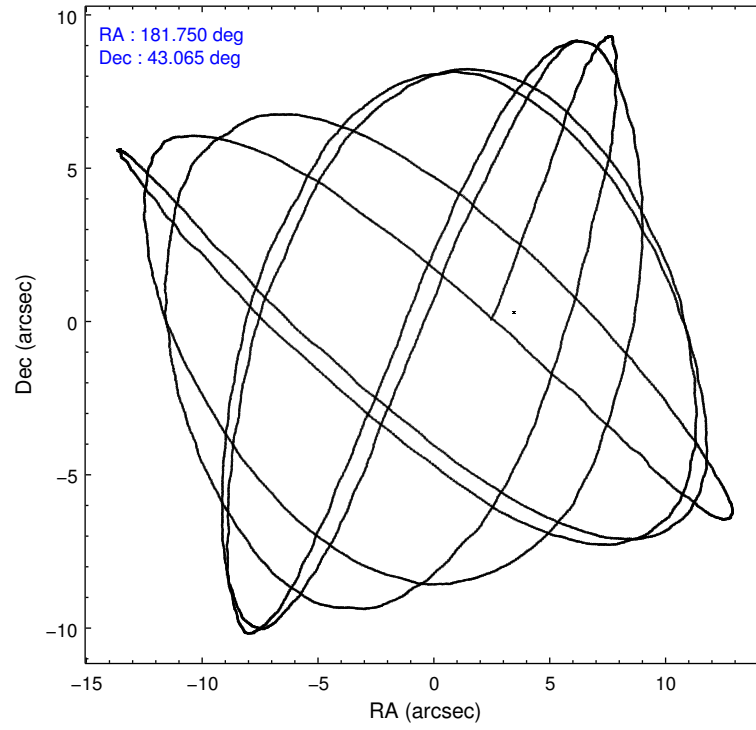
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	64746	54904	53644	63874	43841	86819	grade 0 events	4510	4610	9023	4618	3609	11910
rejected events	56400	46949	18820	55254	16389	56934		6%	8%	16%	7%	8%	13%
rejected %	87%	85%	35%	86%	37%	65%	grade 1 events	42	31	220	34	67	107
								0%	0%	0%	0%	0%	0%
							grade 2 events	1519	1182	10972	1421	6682	5071
								2%	2%	20%	2%	15%	5%
							grade 3 events	667	724	1893	845	2593	4212
								1%	1%	3%	1%	5%	4%
							grade 4 events	727	657	1927	799	2576	3651
								1%	1%	3%	1%	5%	4%
							grade 5 events	684	756	2957	811	2814	1291
								1%	1%	5%	1%	6%	1%
							grade 6 events	1067	938	11637	1095	12500	5662
								1%	1%	21%	1%	28%	6%
							grade 7 events	55530	46006	15015	54251	13000	54915
								85%	83%	27%	84%	29%	63%

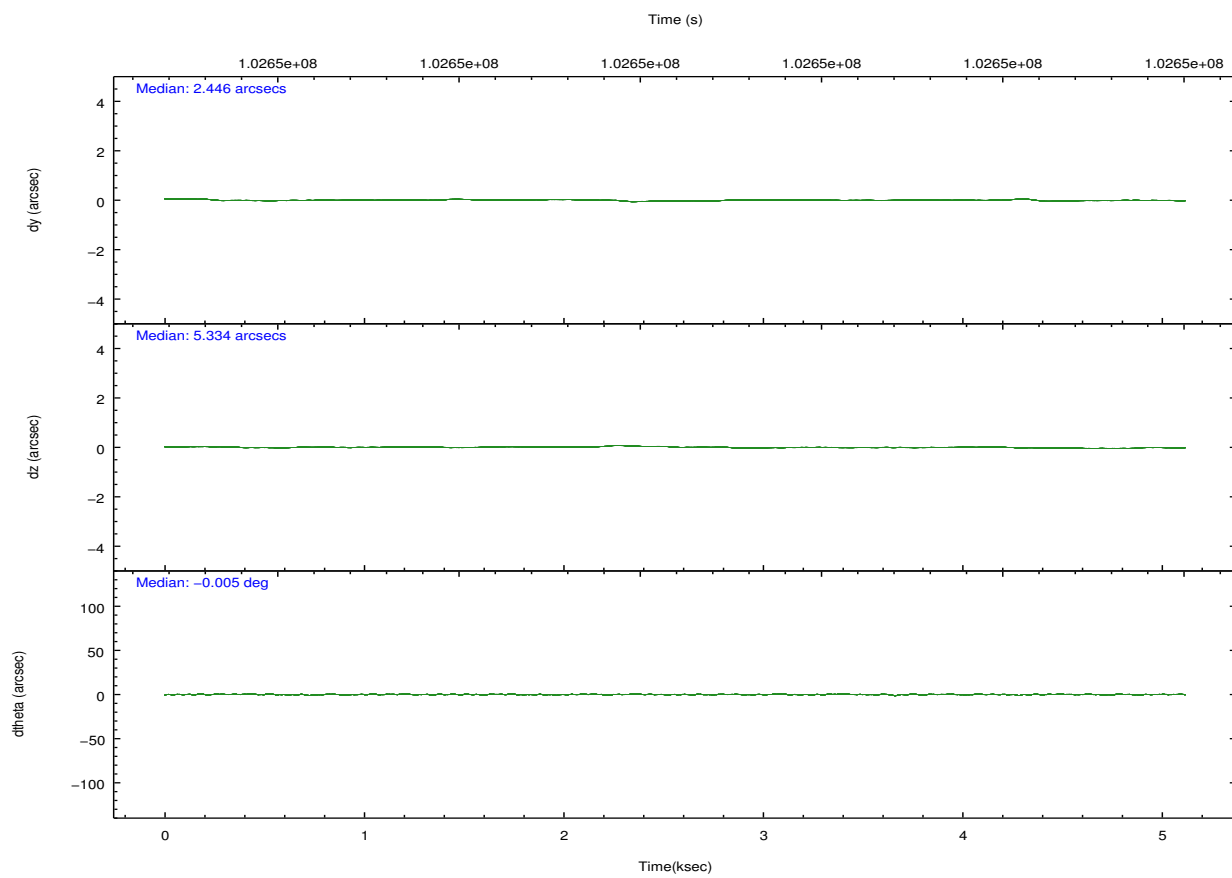
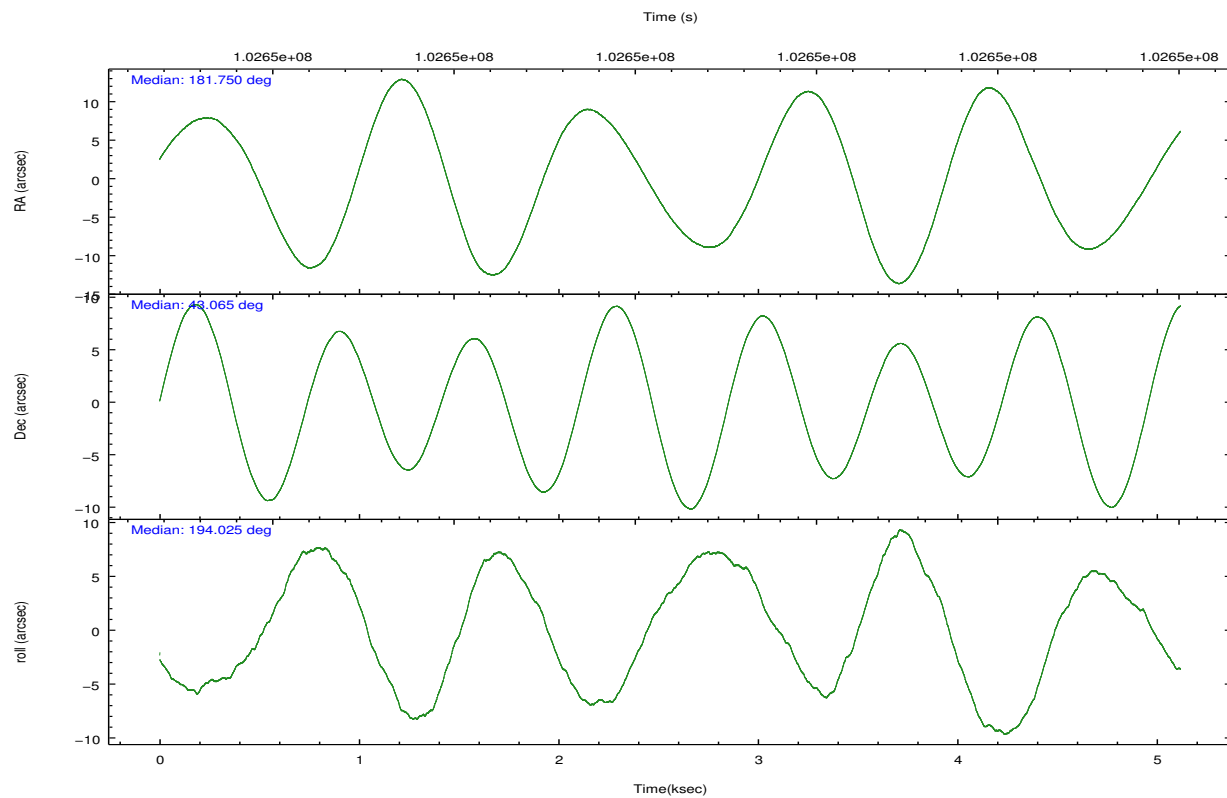
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-235678	ACIS-235678
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	181.776582	181.7499828291527
[deg] Pointing Dec	43.083887	43.06469585492101
[deg] Pointing Roll	193.857952	194.0328120232208
[mm] SIM focus pos	-0.6828225247311905	-0.6828225247311905
[mm] SIM defocus	0.001444942264670179	0.001444942264670179
[mm] SIM translation stage pos	-190.1400660498719	-190.1400660498719
[mm] SIM translation stage offset	0.007542945904702947	0.007542945904702947
[s] Observation start time (MET)	102646629.184000	102646629.184
Observation start date	2001-04-03T00:56:05	2001-04-03T00:57:09
[s] Observation end time (MET)	102651749.000000	102651749
Observation end date	2001-04-03T02:22:29	2001-04-03T02:22:28
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	OVERRIDE	OVERRIDE
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	CUSTOM
Subarray start row	257	257
Subarray row count	512	512
Alternating exposures requested	N	N
[s] Primary exposure time	1.8	1.8

2.3 Aspect



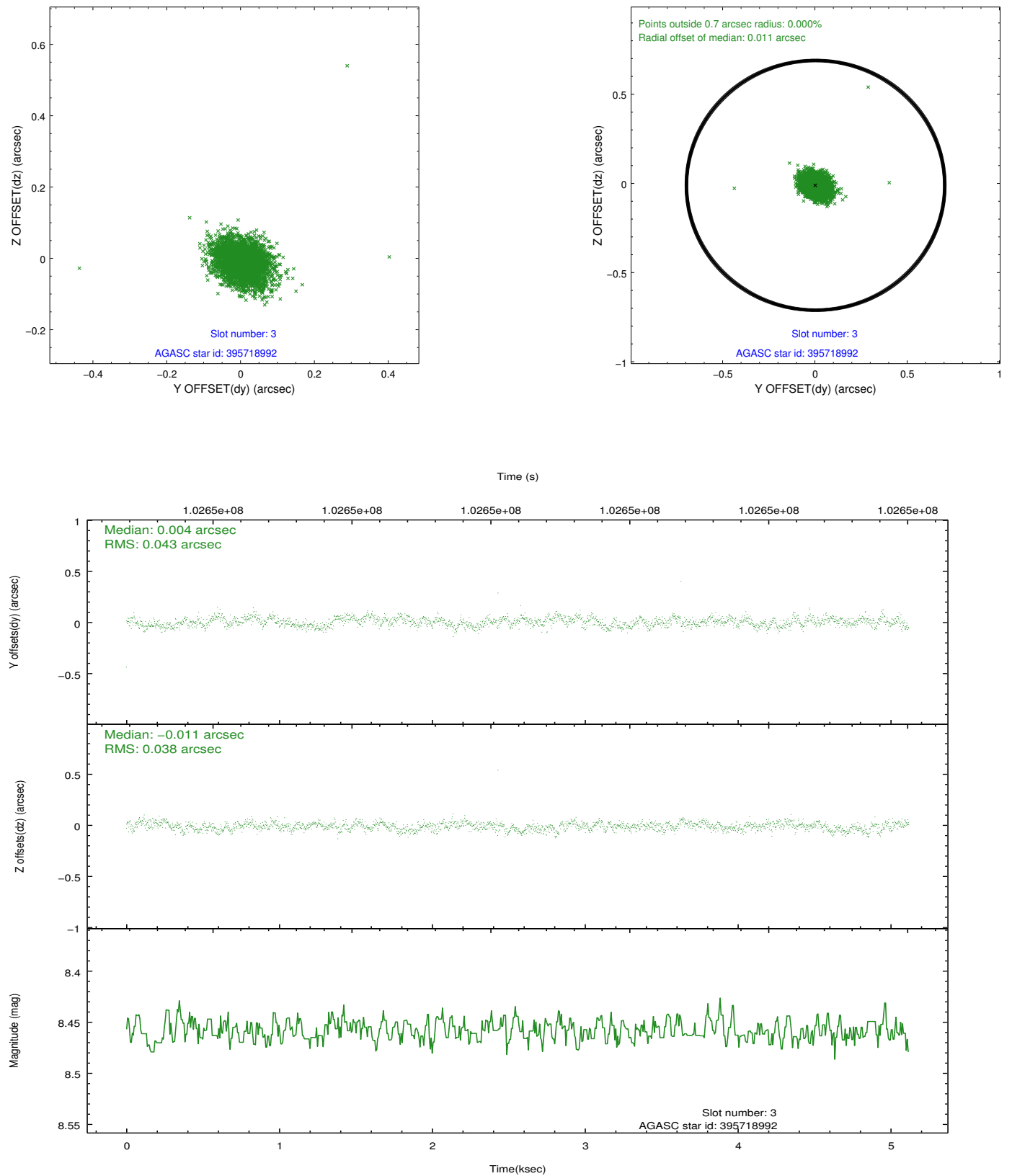


Slot Statistics

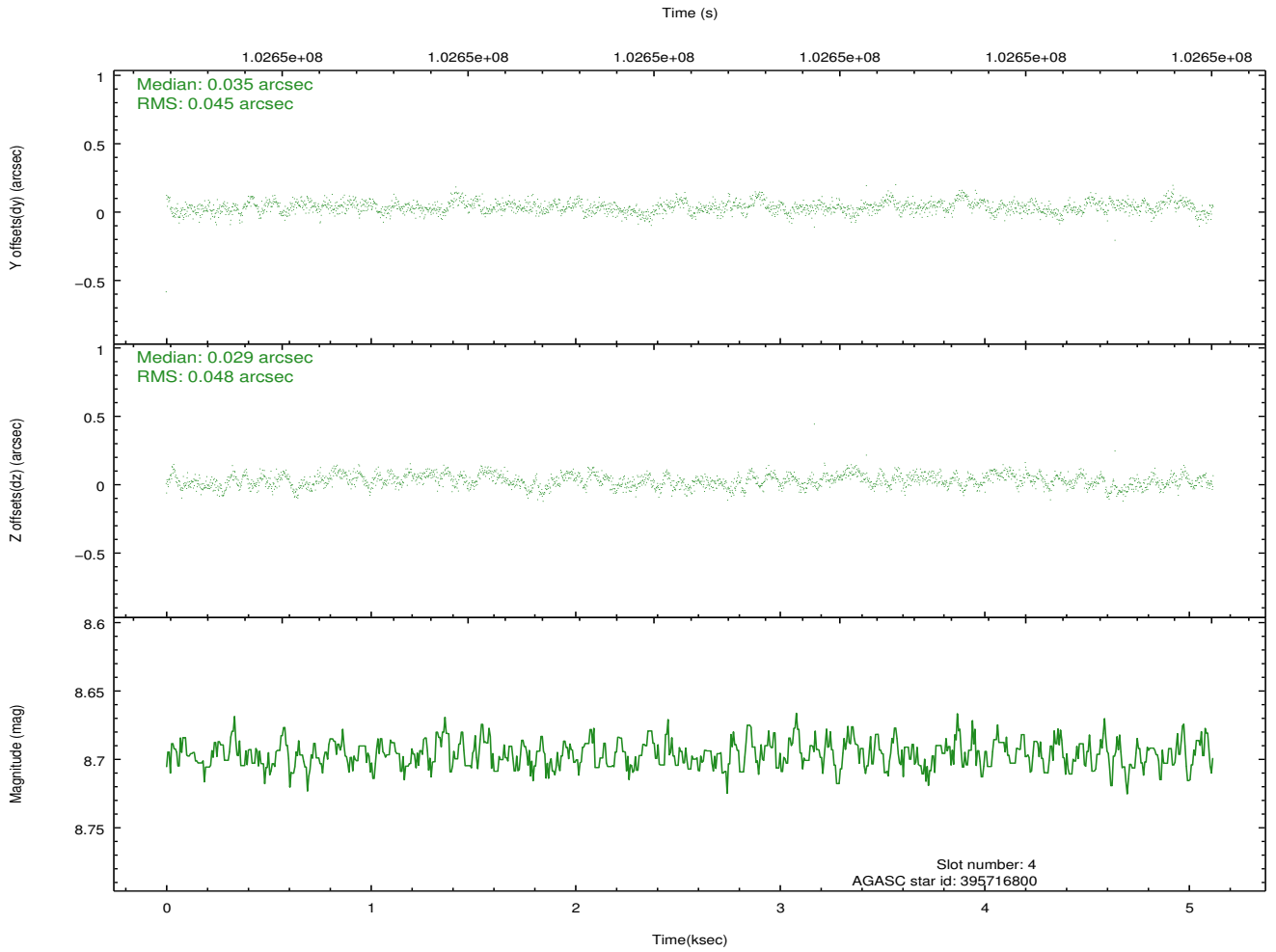
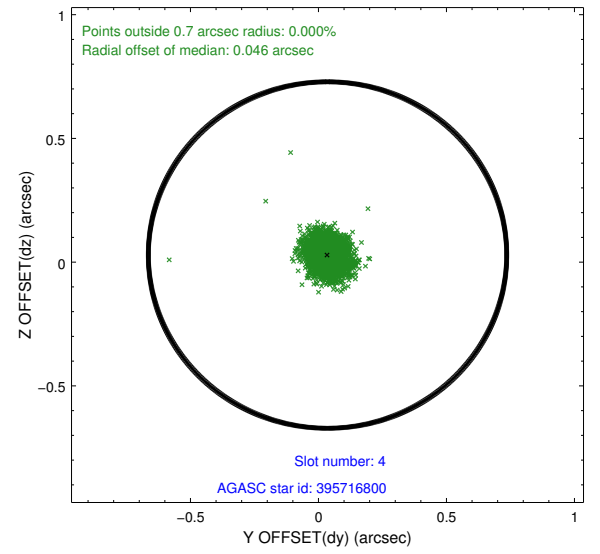
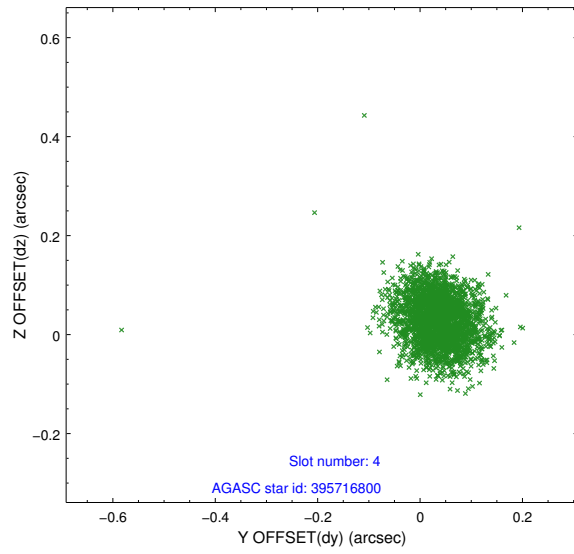
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	1249	-0.036	-0.005	0.006	0.010	0.000000	0.000000	-755.06	-1726.48
1	FID	ACIS-S-4	7.20	1249	-0.021	0.019	0.005	0.009	0.000000	0.000000	2157.65	180.88
2	FID	ACIS-S-5	7.24	1249	0.026	-0.005	0.006	0.010	0.000000	0.000000	-1806.36	175.77
3	GUIDE	395718992	8.46	2497	0.004	-0.011	0.059	0.095	181.388768	43.164808	917.69	-528.96
4	GUIDE	395716800	8.70	2496	0.035	0.029	0.069	0.110	181.771352	42.659863	378.53	1478.53
5	GUIDE	395711504	9.46	2498	0.056	-0.085	0.084	0.134	181.167625	43.344906	1321.06	-1299.22
6	GUIDE	395718152	9.40	2493	-0.035	0.105	0.086	0.140	181.978934	42.765825	-245.52	1238.64
7	GUIDE	395715072	9.52	2492	-0.061	-0.036	0.085	0.144	182.150841	42.961754	-853.44	661.15

2.4 Star Slots

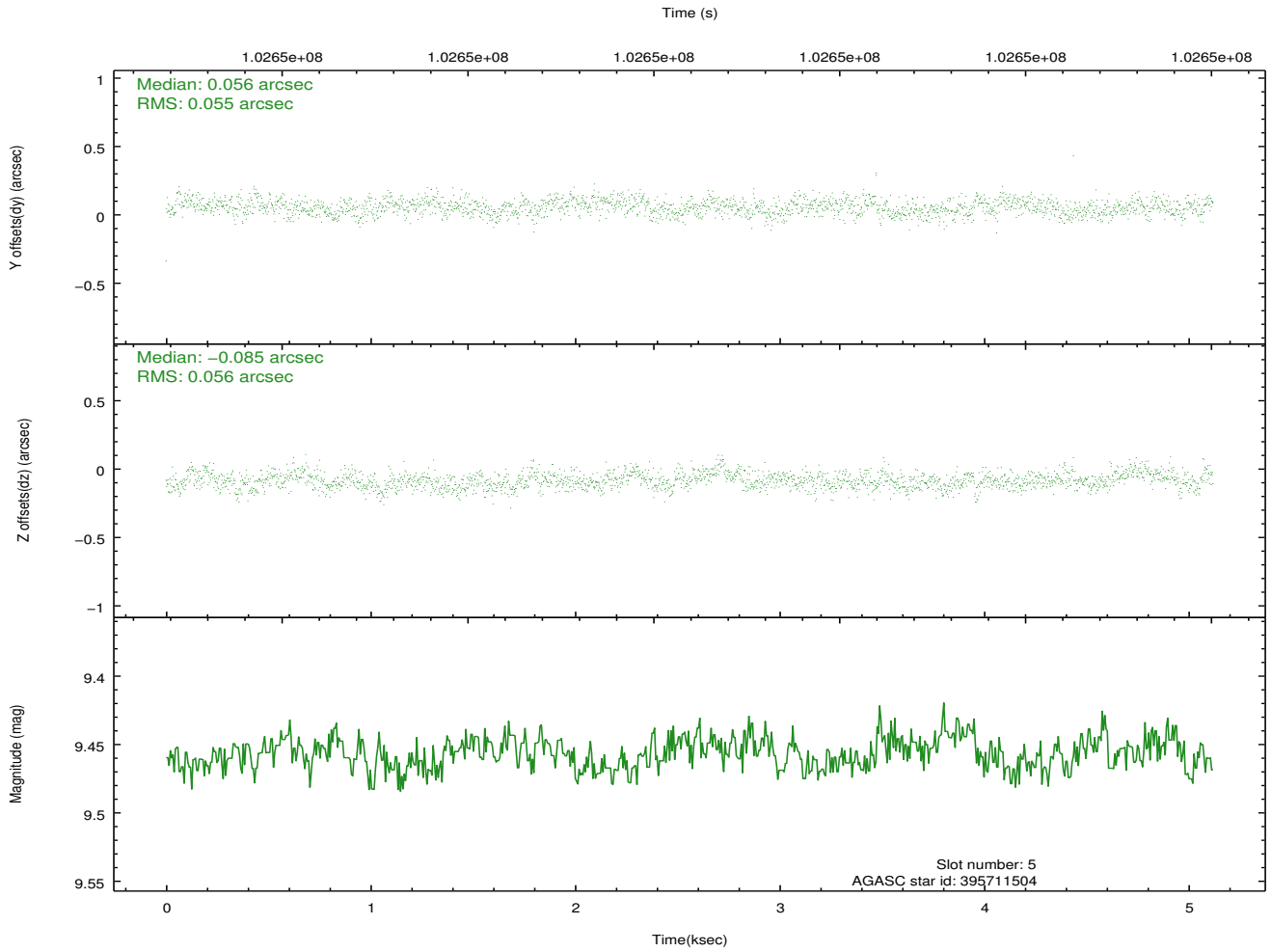
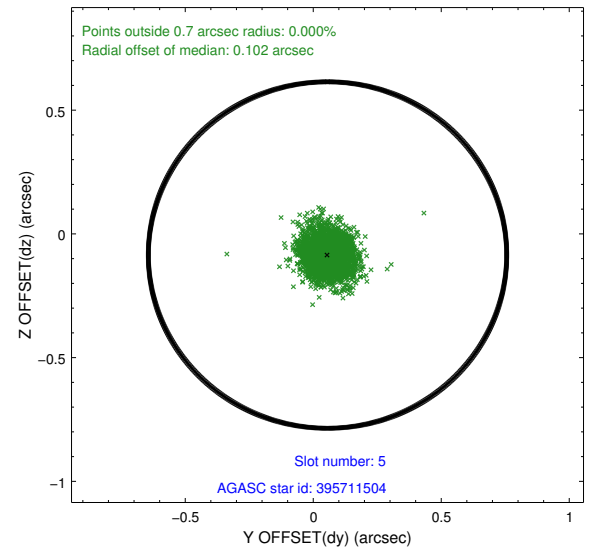
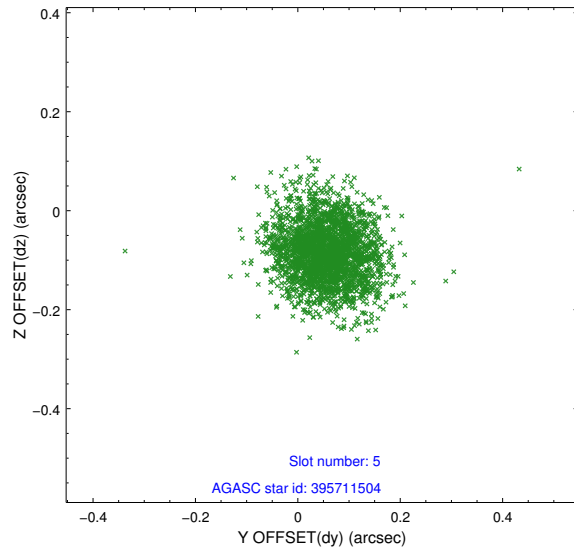
2.4.1 Slot 3



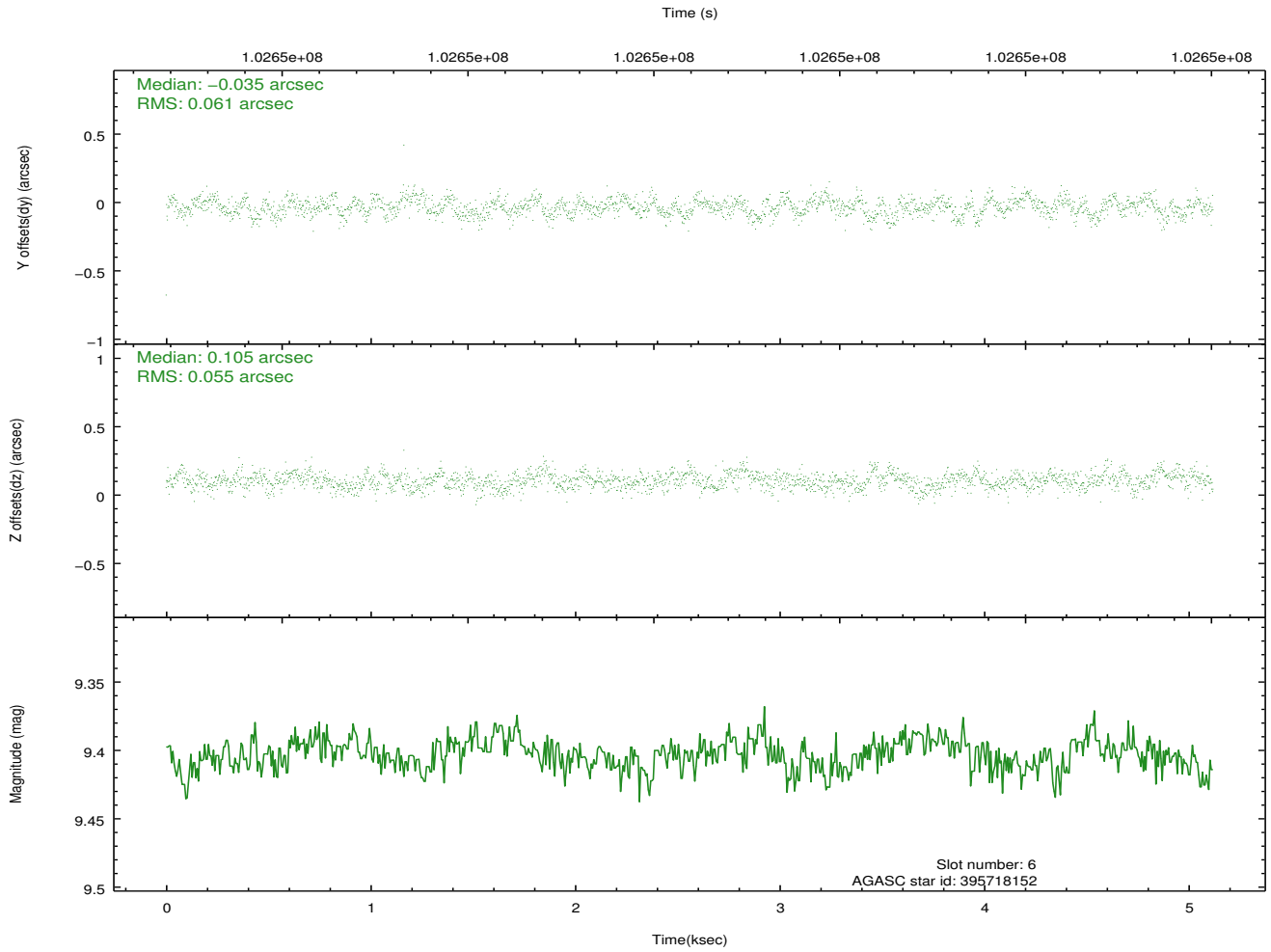
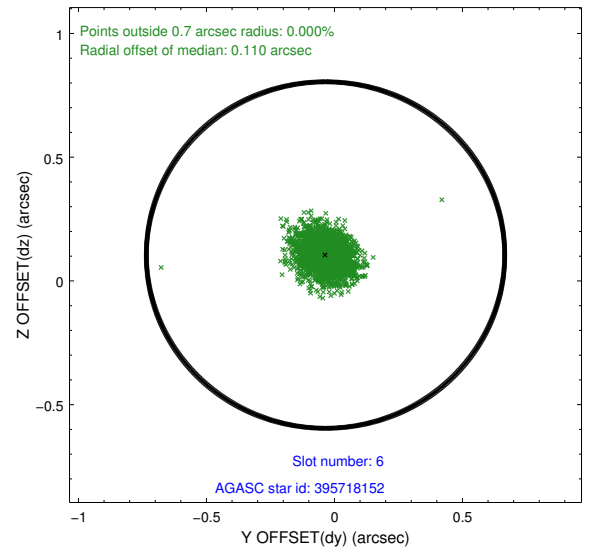
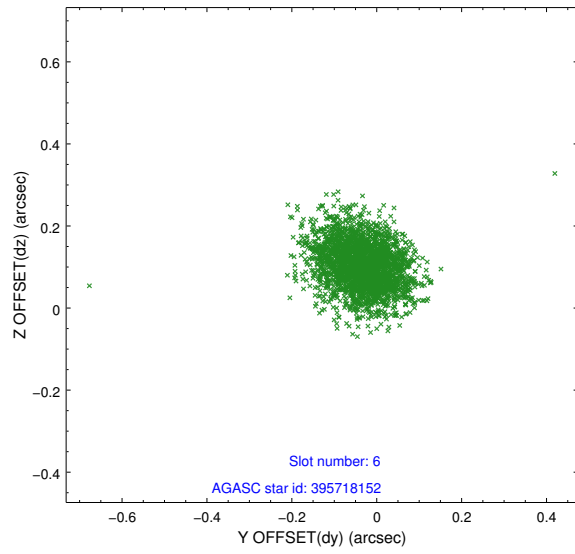
2.4.2 Slot 4



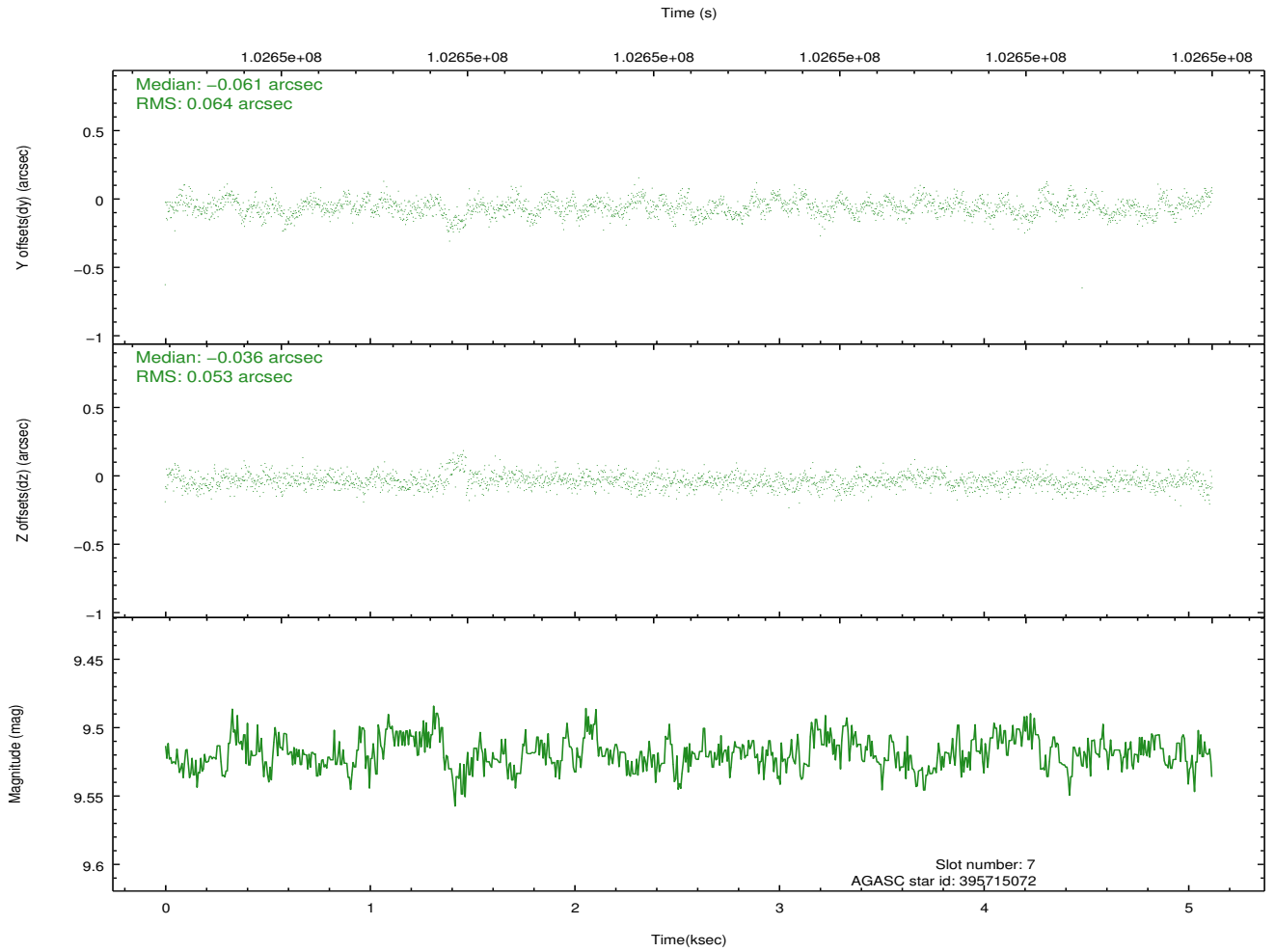
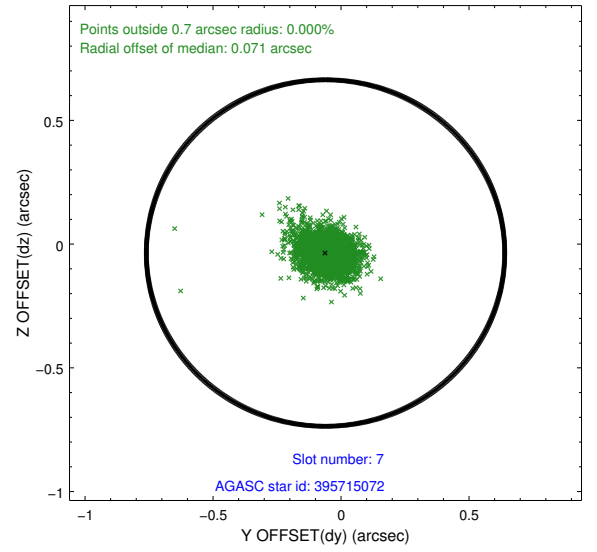
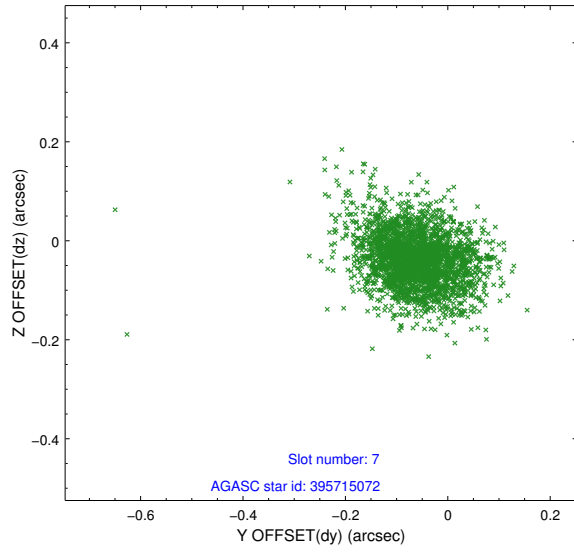
2.4.3 Slot 5



2.4.4 Slot 6

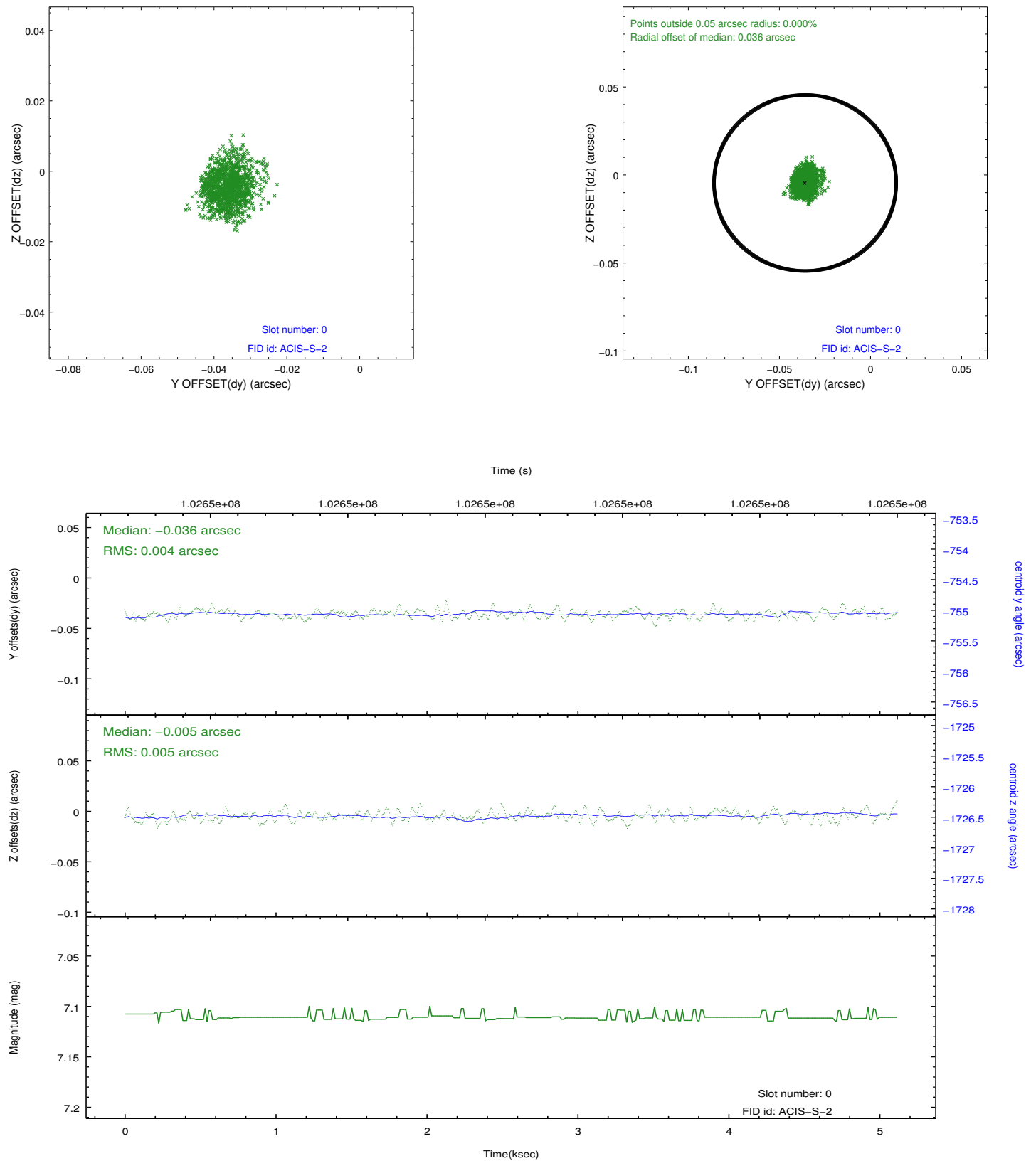


2.4.5 Slot 7

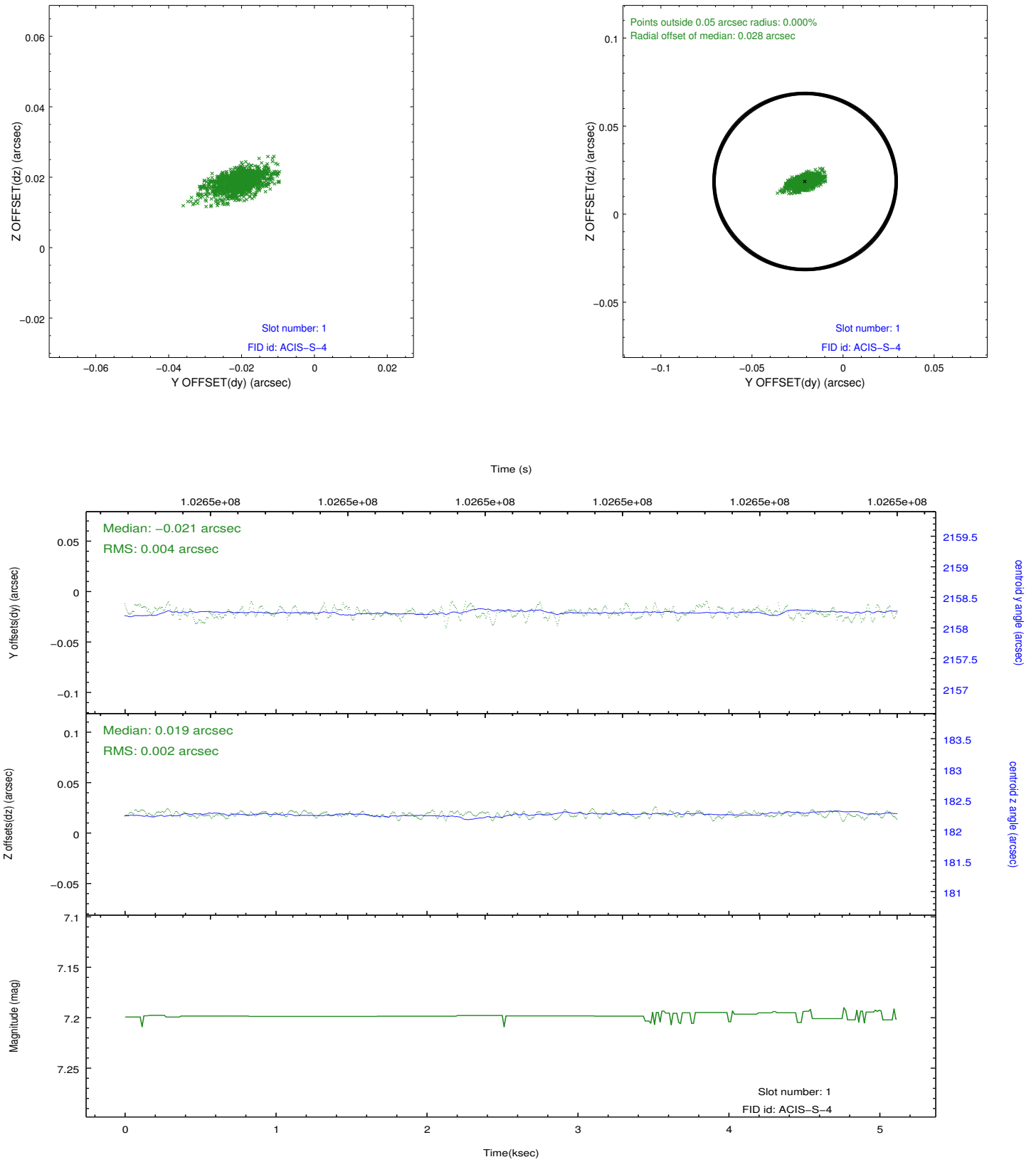


2.5 FID Slots

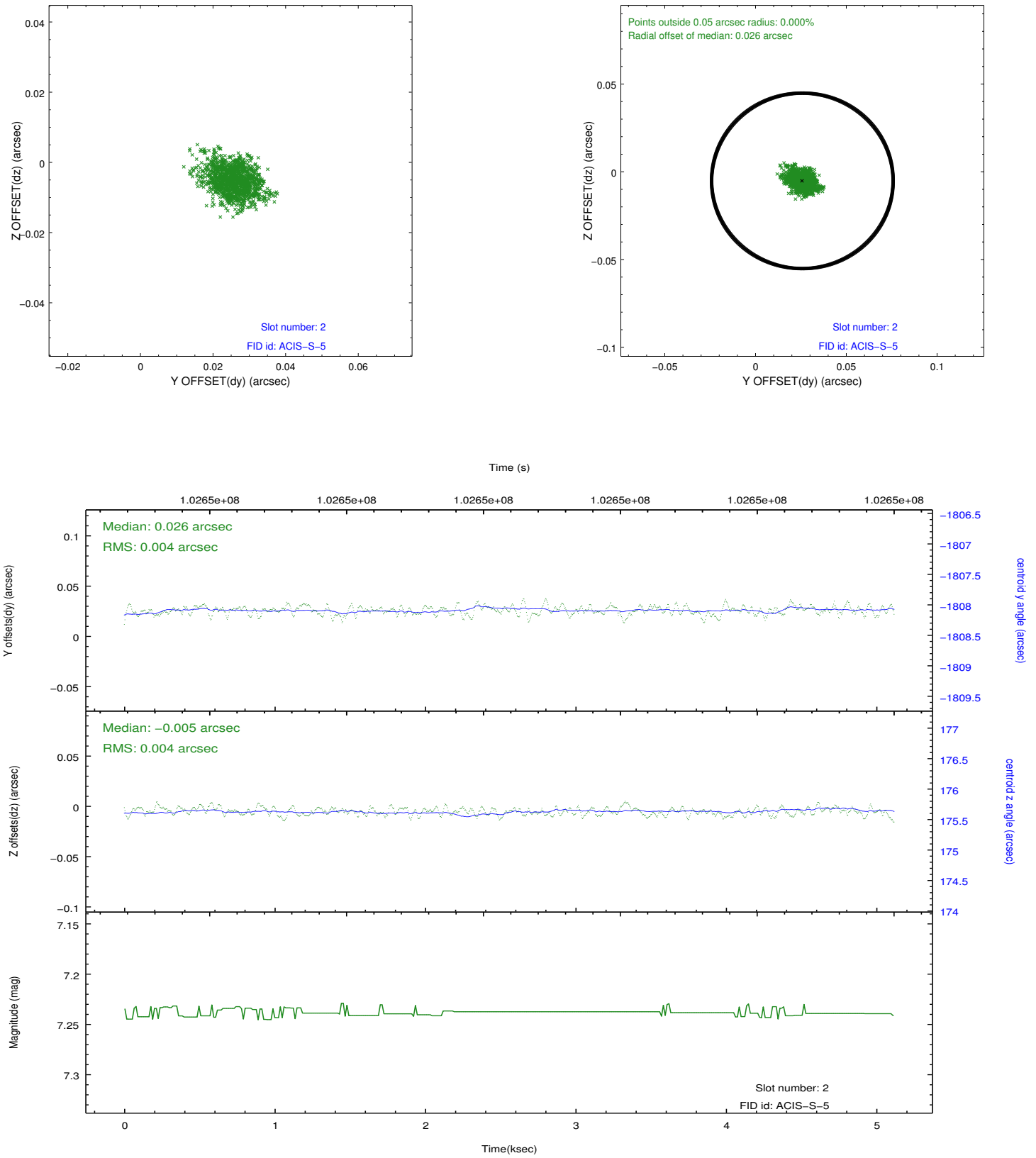
2.5.1 Slot 0



2.5.2 Slot 1



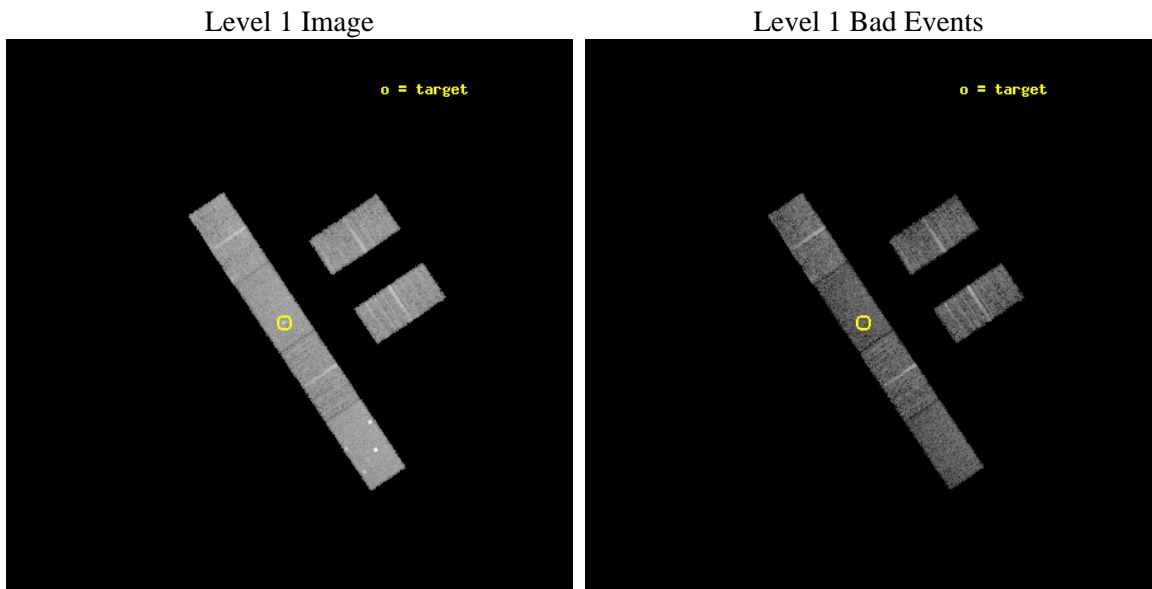
2.5.3 Slot 2



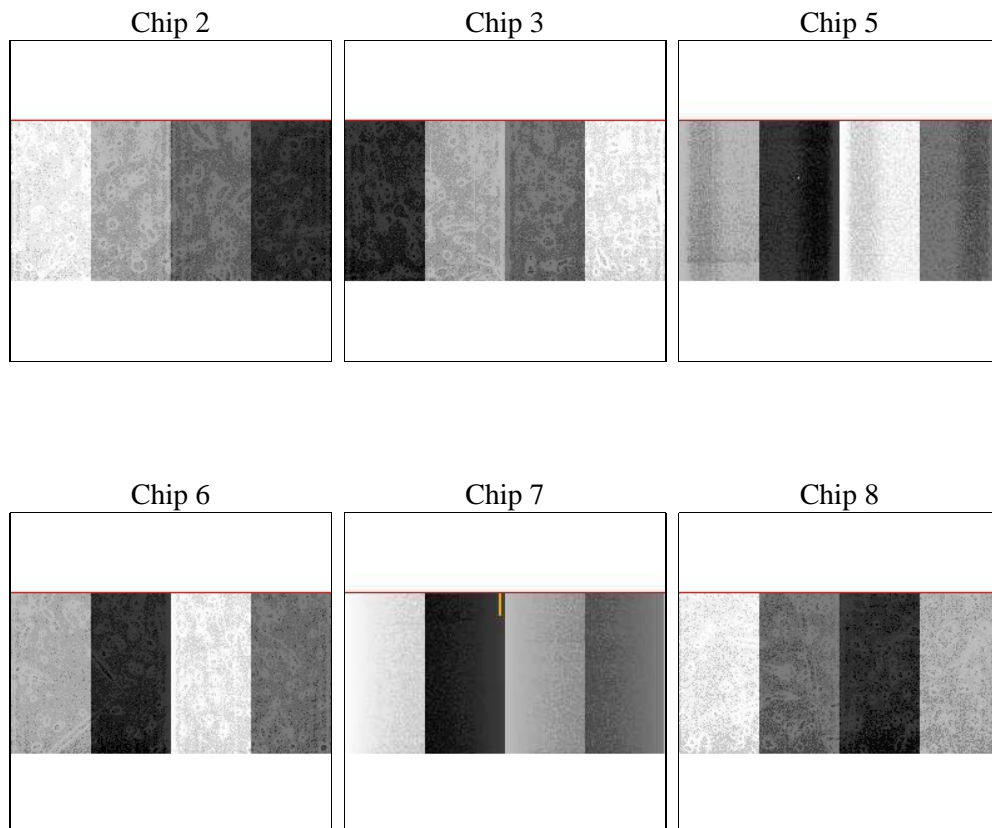
3 OBI

3.1 OBI

3.1.1 Images



3.1.2 Bias



3.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	9449.000000	[s] Scheduled observation exposure time
ascdsver	8.5.1.1	Processing system revision	ontime	9550.7999842018	Sum of GTIs [s]
caldsver	4.5.5	 	ontime2	9550.7999842018	Sum of GTIs [s]
date	2013-02-21T04:49:25	Date and time of file creation	ontime3	9550.7999842018	Sum of GTIs [s]
revision	4	Processing version of data	ontime5	9550.7999842018	Sum of GTIs [s]
			ontime6	9550.7999842018	Sum of GTIs [s]
			ontime7	9550.7999842018	Sum of GTIs [s]
			ontime8	9550.7999842018	Sum of GTIs [s]
			l1events	273174	Number of level 1 events

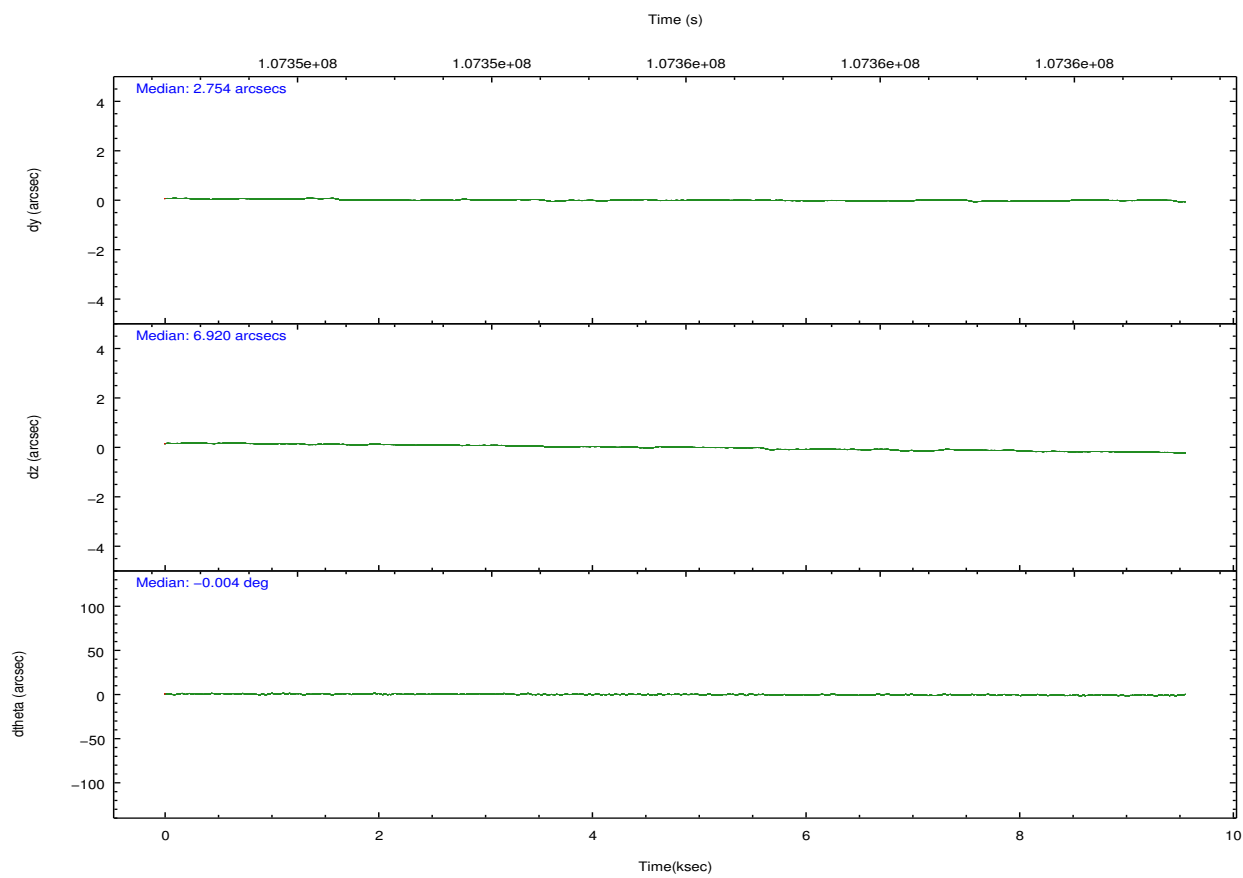
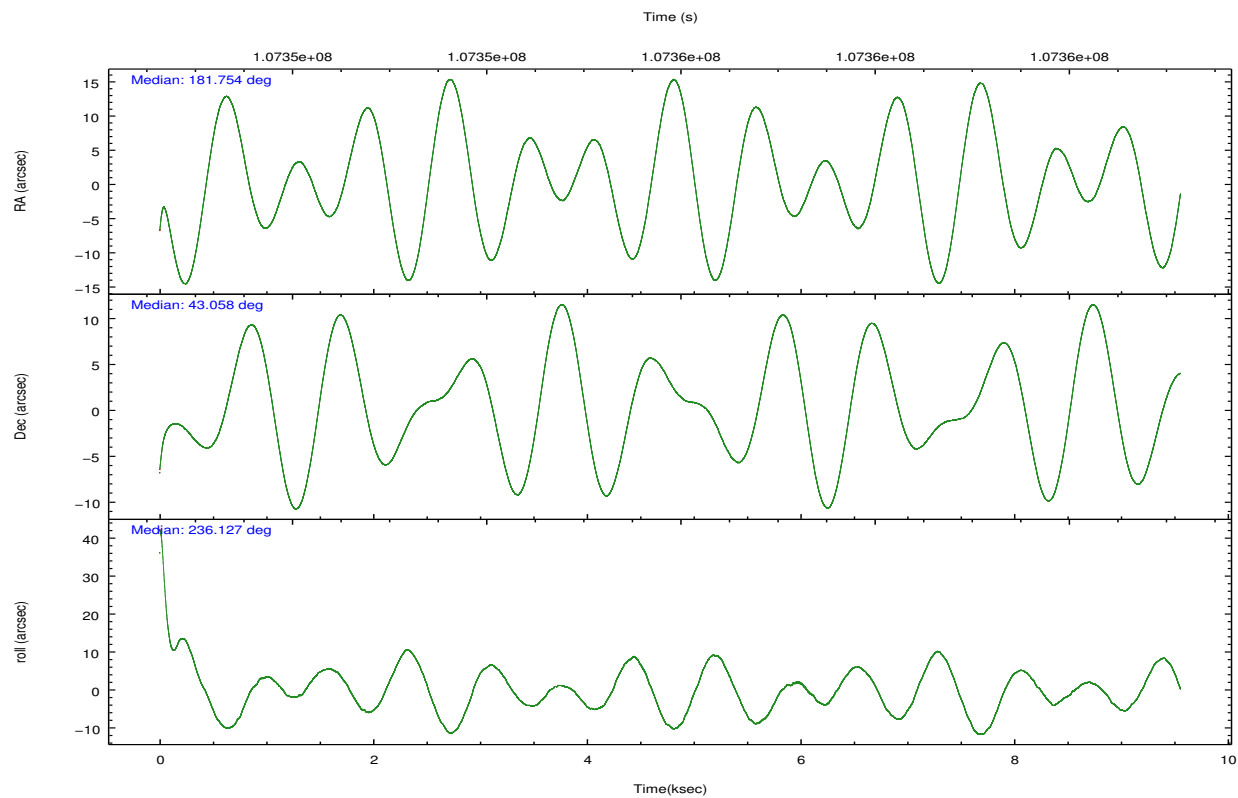
3.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	41811	37849	57110	38383	47662	50359	grade 0 events	1960	1831	9229	1652	2444	2805
rejected events	37827	34213	31732	34629	29638	42151		4%	4%	16%	4%	5%	5%
rejected %	90%	90%	55%	90%	62%	83%	grade 1 events	10	19	74	13	46	20
								0%	0%	0%	0%	0%	0%
							grade 2 events	956	744	6599	879	4186	2030
								2%	1%	11%	2%	8%	4%
							grade 3 events	476	501	1193	517	2076	1065
								1%	1%	2%	1%	4%	2%
							grade 4 events	514	491	1107	534	2053	892
								1%	1%	1%	1%	4%	1%
							grade 5 events	1238	1326	4129	1520	4421	1970
								2%	3%	7%	3%	9%	3%
							grade 6 events	754	752	11703	822	10274	2776
								1%	1%	20%	2%	21%	5%
							grade 7 events	35903	32185	23076	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	7	7
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
[deg] Pointing RA	181.756157	181.7538970364994	Subarray requested	CUSTOM	1/2
[deg] Pointing Dec	43.085600	43.05829969155014	Subarray start row	257	257
[deg] Pointing Roll	235.977827	236.1360523668886	Subarray row count	512	512
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	1.8
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	107351214.184000	107349455.06537			
Observation start date	2001-05-27T11:45:50	2001-05-27T11:17:35			
[s] Observation end time (MET)	107360663.184000	107361143.65333			
Observation end date	2001-05-27T14:23:19	2001-05-27T14:32:23			
Read mode	TIMED	TIMED			

3.3 Aspect

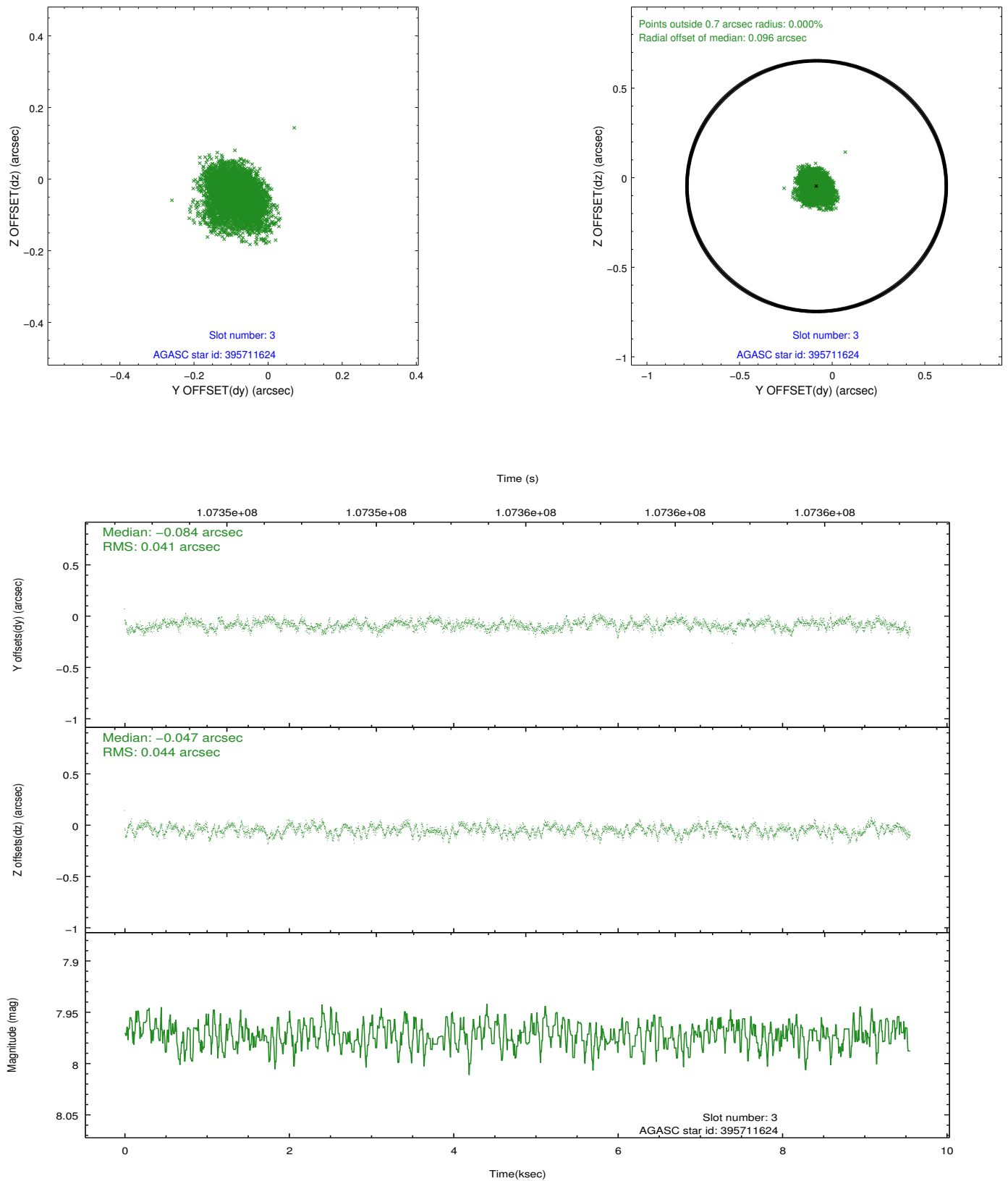


Slot Statistics

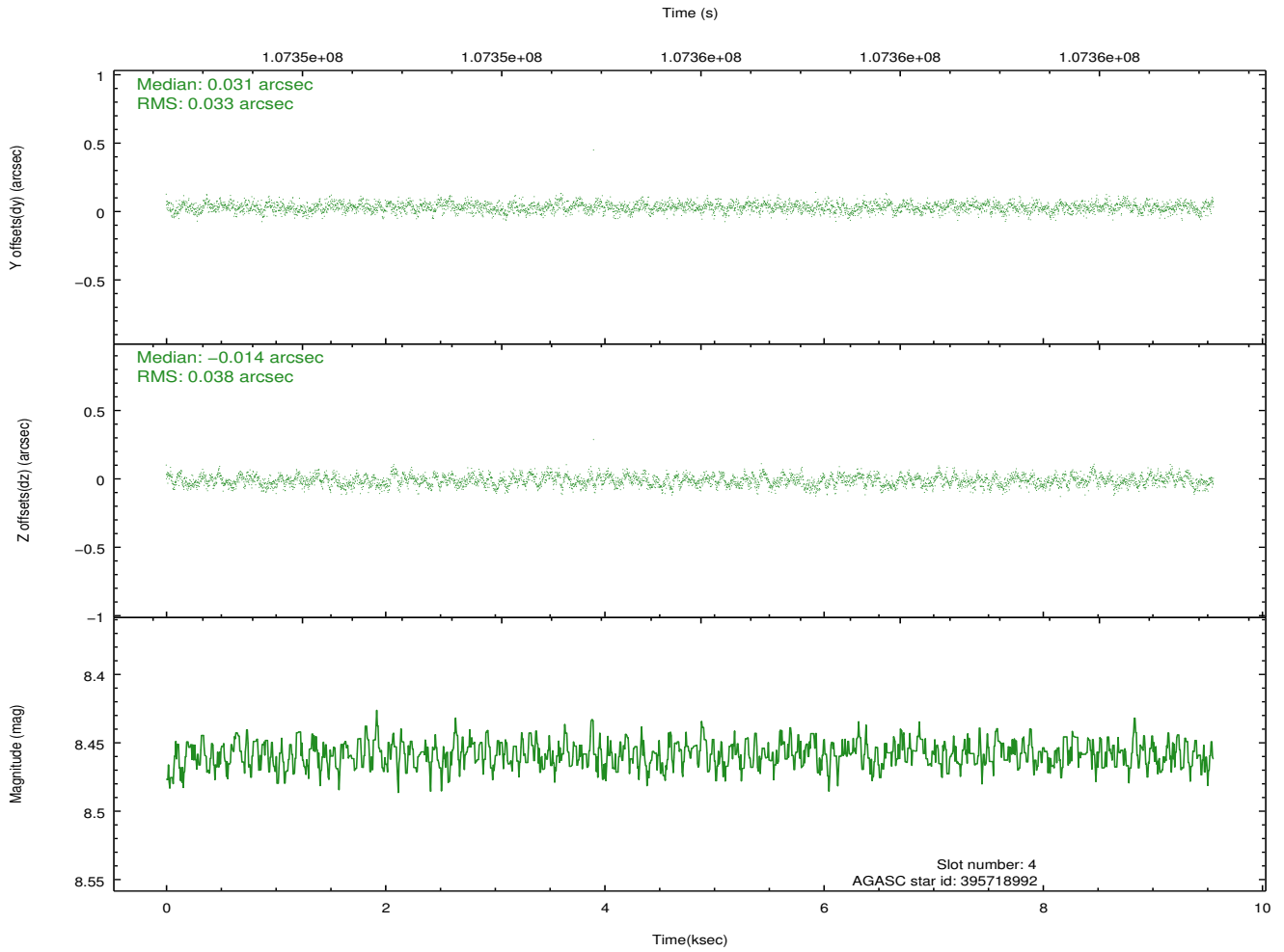
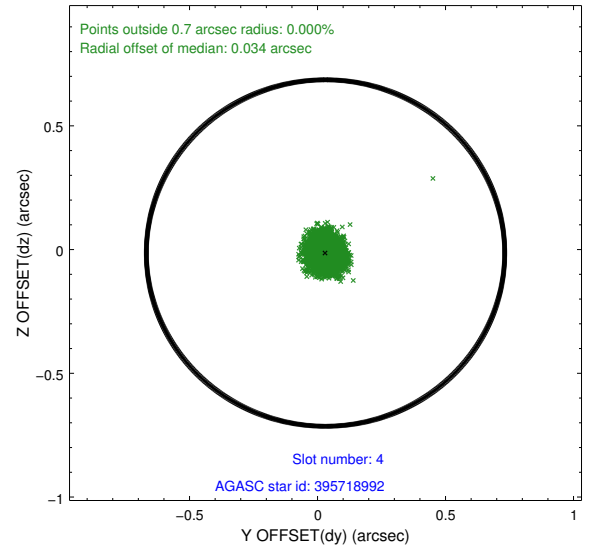
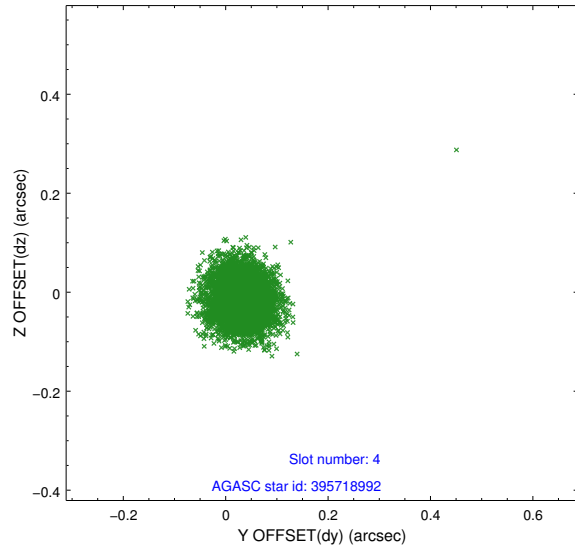
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	1249	-0.036	-0.005	0.006	0.010	0.000000	0.000000	-755.06	-1726.48
1	FID	ACIS-S-4	7.20	1249	-0.021	0.019	0.005	0.009	0.000000	0.000000	2157.65	180.88
2	FID	ACIS-S-5	7.24	1249	0.026	-0.005	0.006	0.010	0.000000	0.000000	-1806.36	175.77
3	GUIDE	395718992	8.46	2497	0.004	-0.011	0.059	0.095	181.388768	43.164808	917.69	-528.96
4	GUIDE	395716800	8.70	2496	0.035	0.029	0.069	0.110	181.771352	42.659863	378.53	1478.53
5	GUIDE	395711504	9.46	2498	0.056	-0.085	0.084	0.134	181.167625	43.344906	1321.06	-1299.22
6	GUIDE	395718152	9.40	2493	-0.035	0.105	0.086	0.140	181.978934	42.765825	-245.52	1238.64
7	GUIDE	395715072	9.52	2492	-0.061	-0.036	0.085	0.144	182.150841	42.961754	-853.44	661.15

3.4 Star Slots

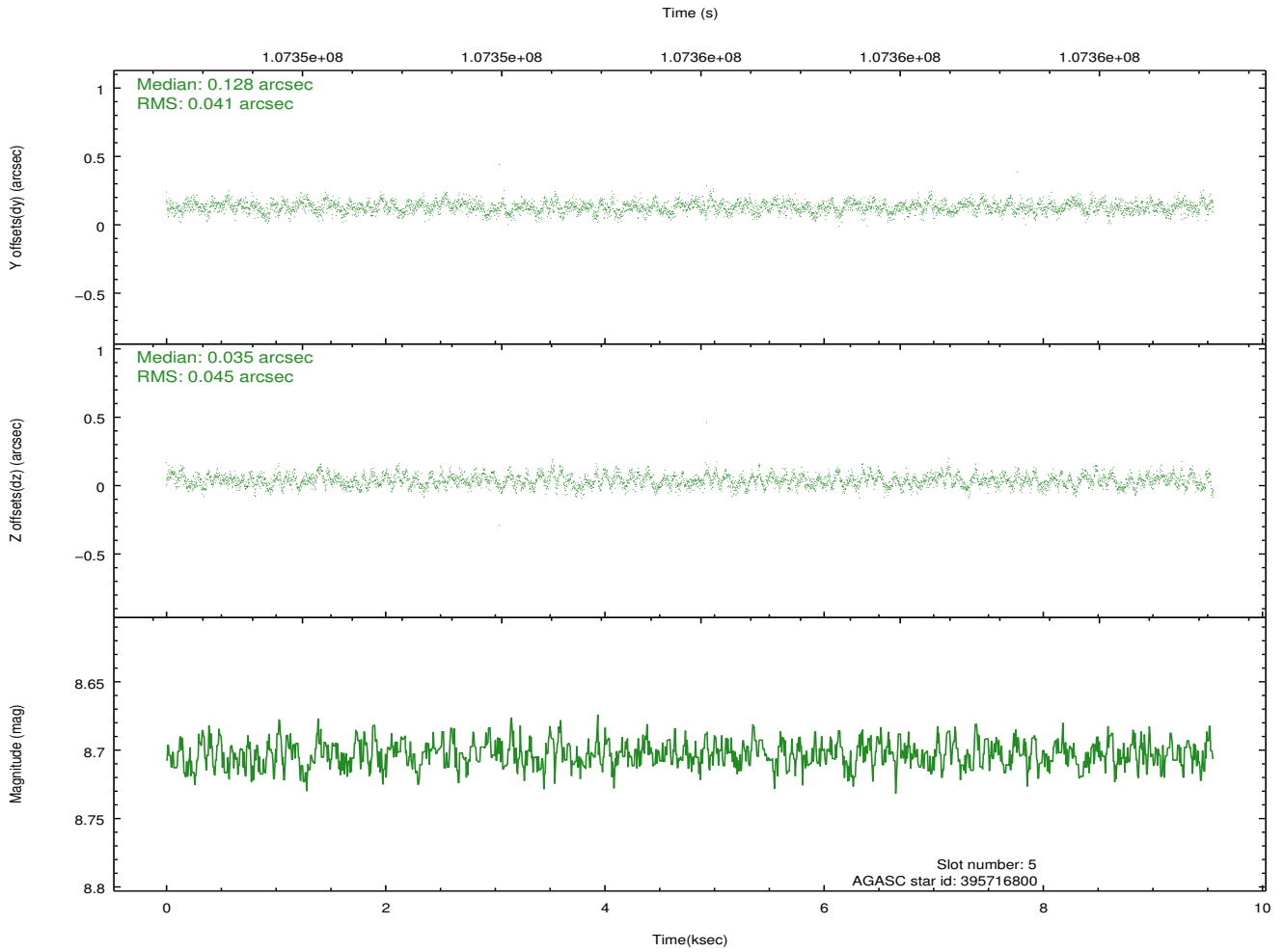
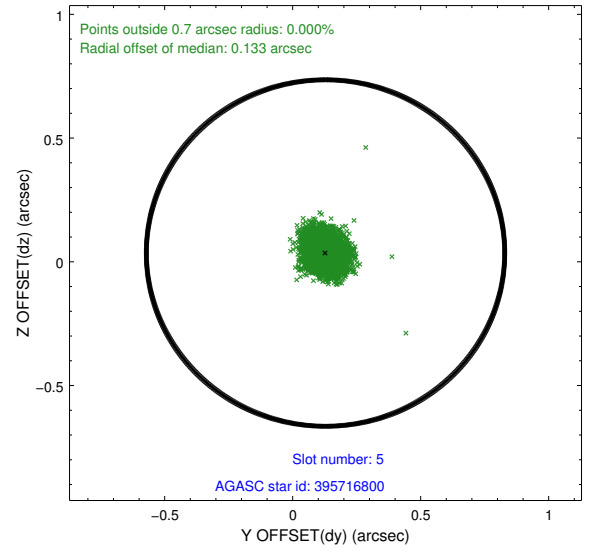
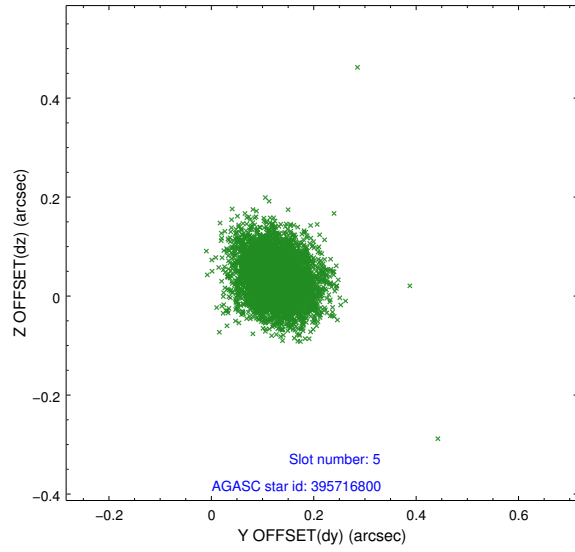
3.4.1 Slot 3



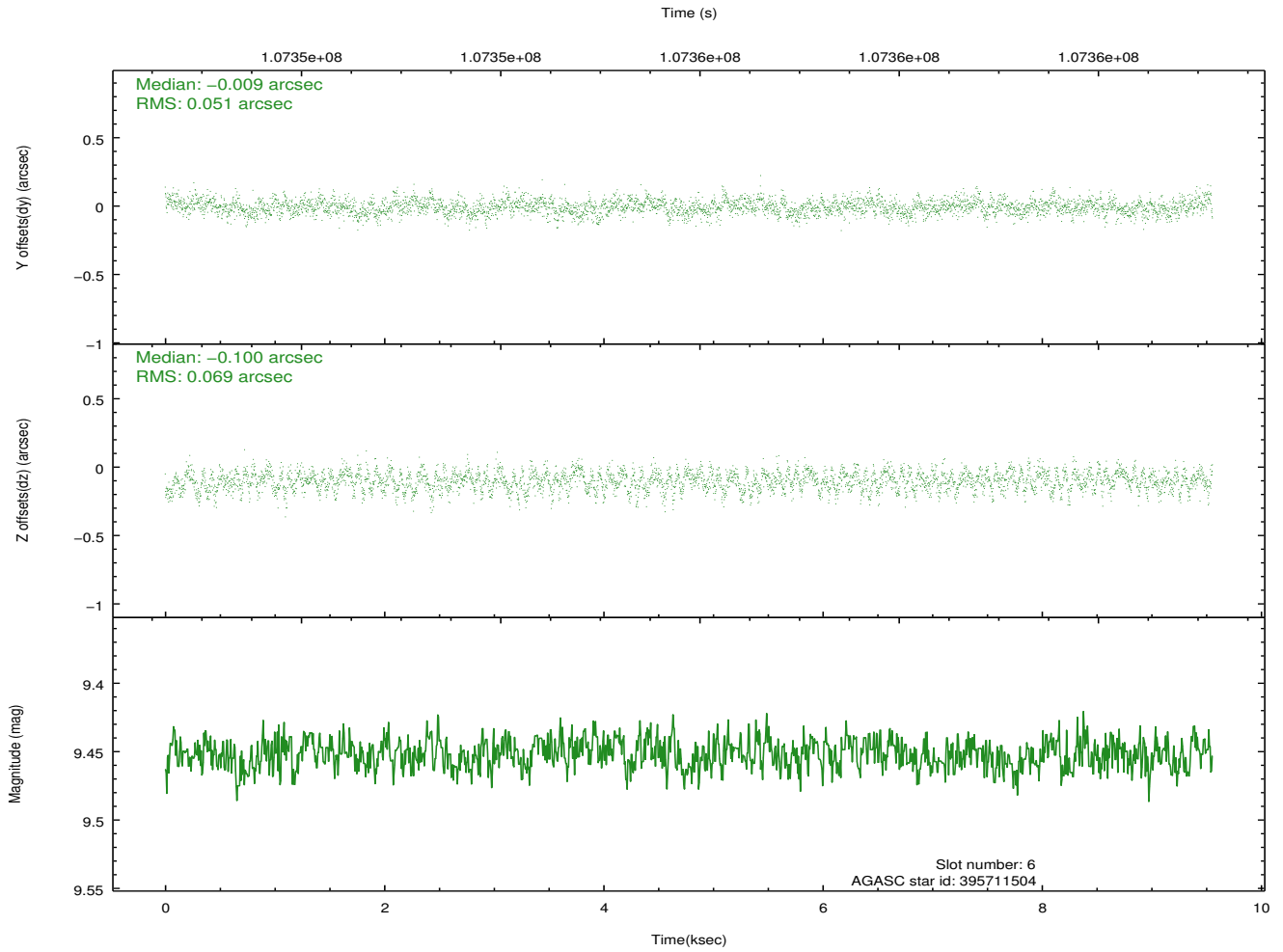
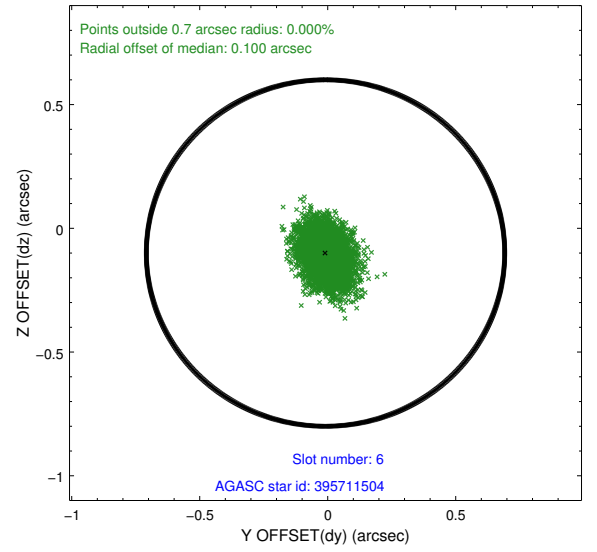
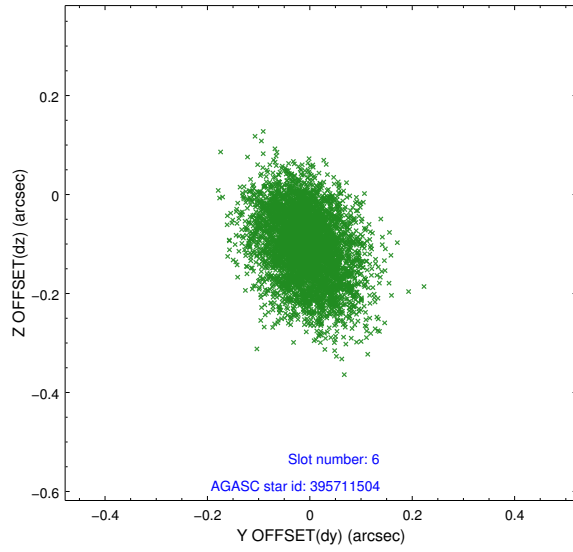
3.4.2 Slot 4



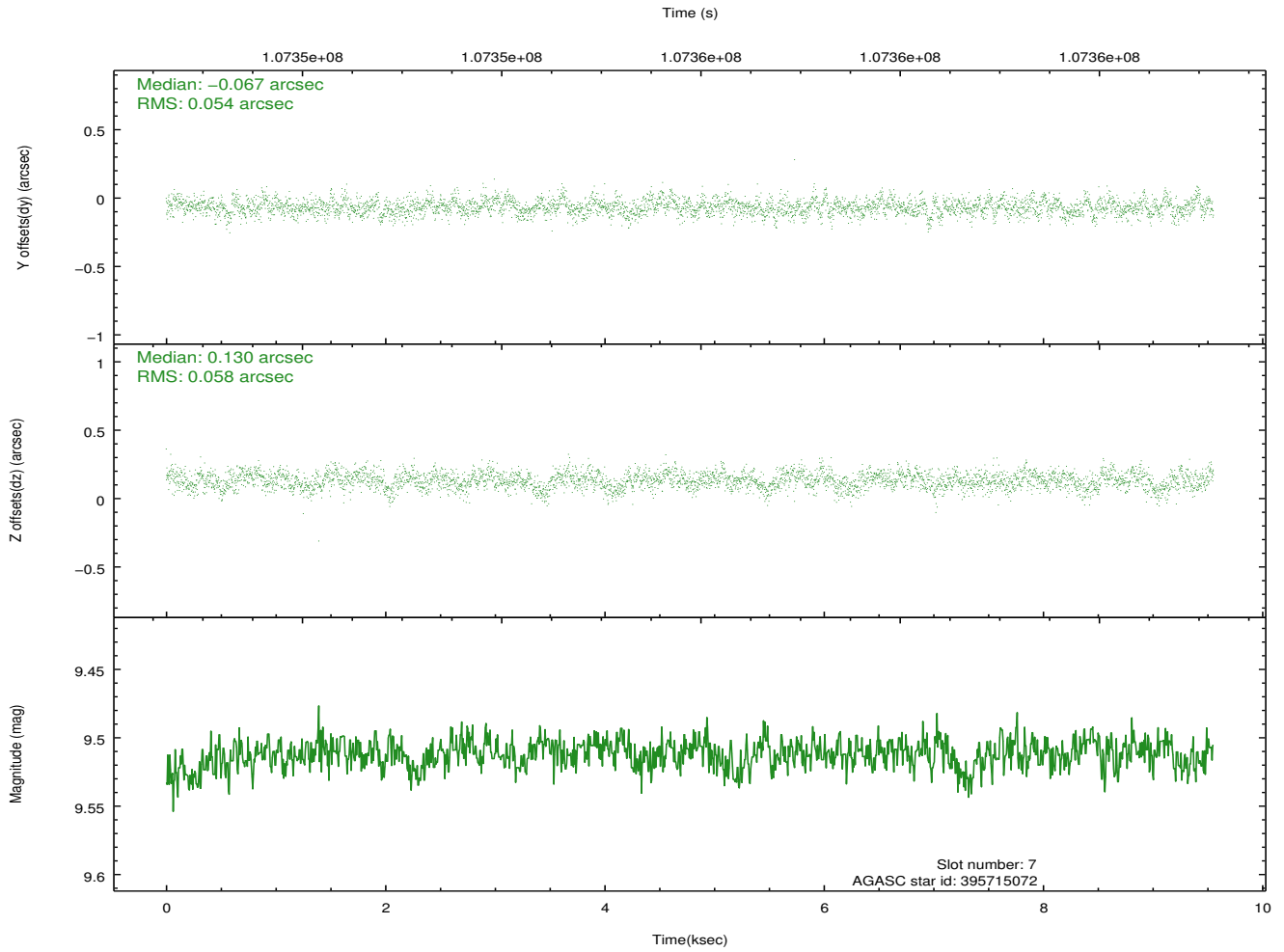
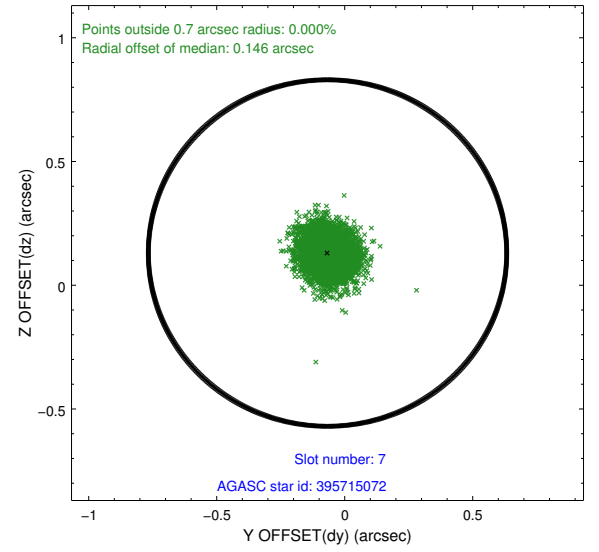
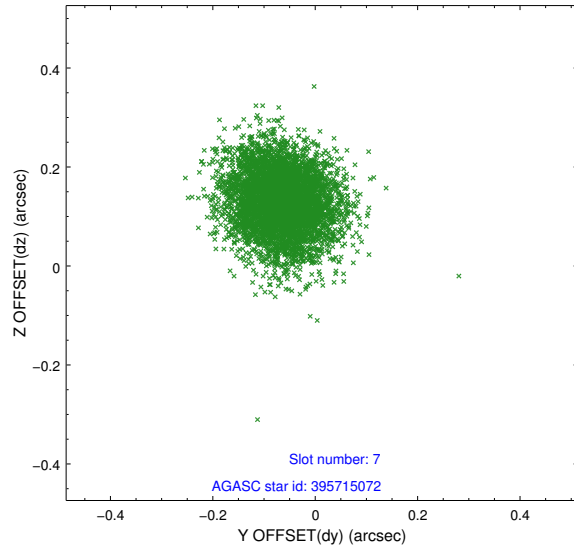
3.4.3 Slot 5



3.4.4 Slot 6

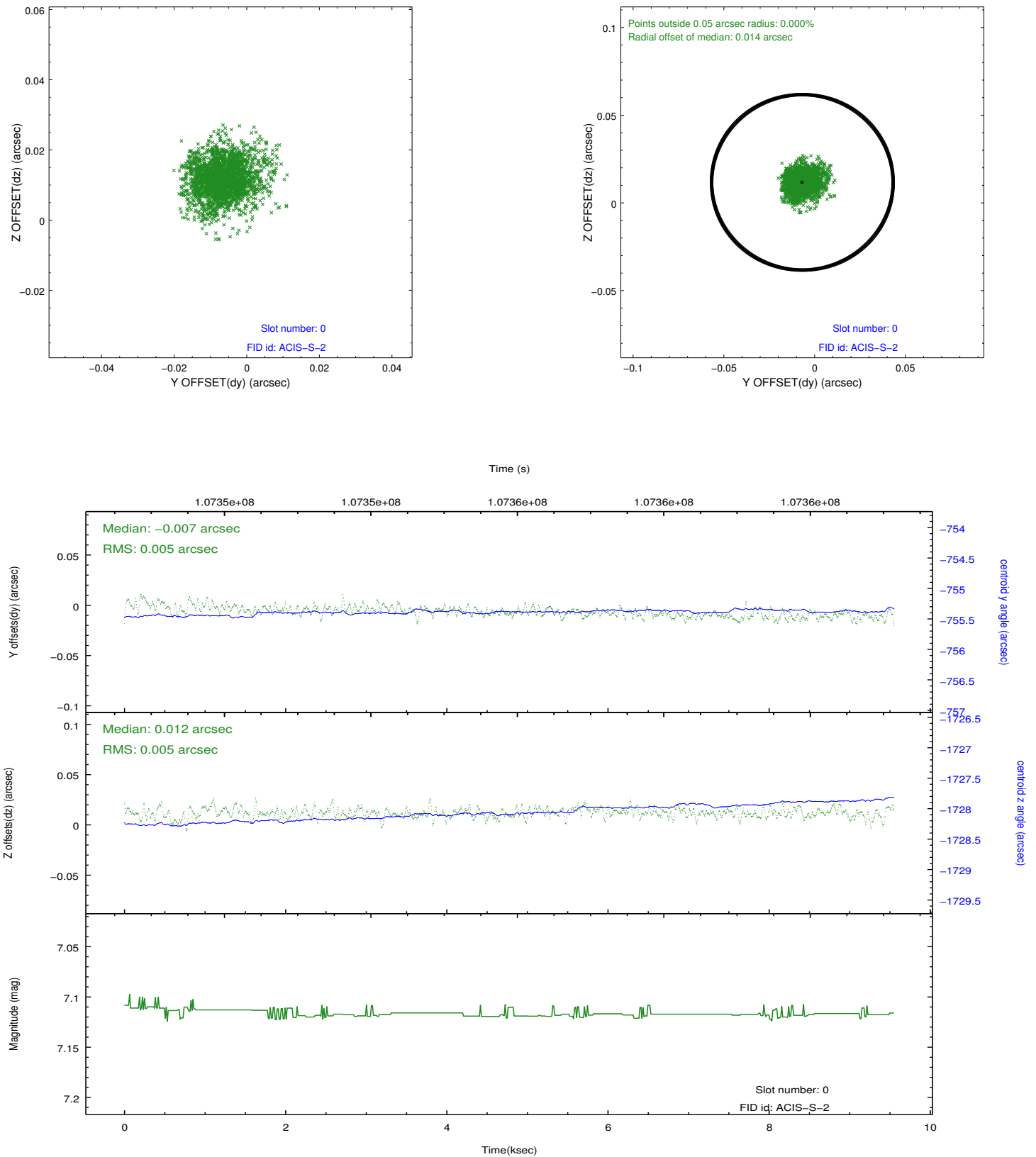


3.4.5 Slot 7

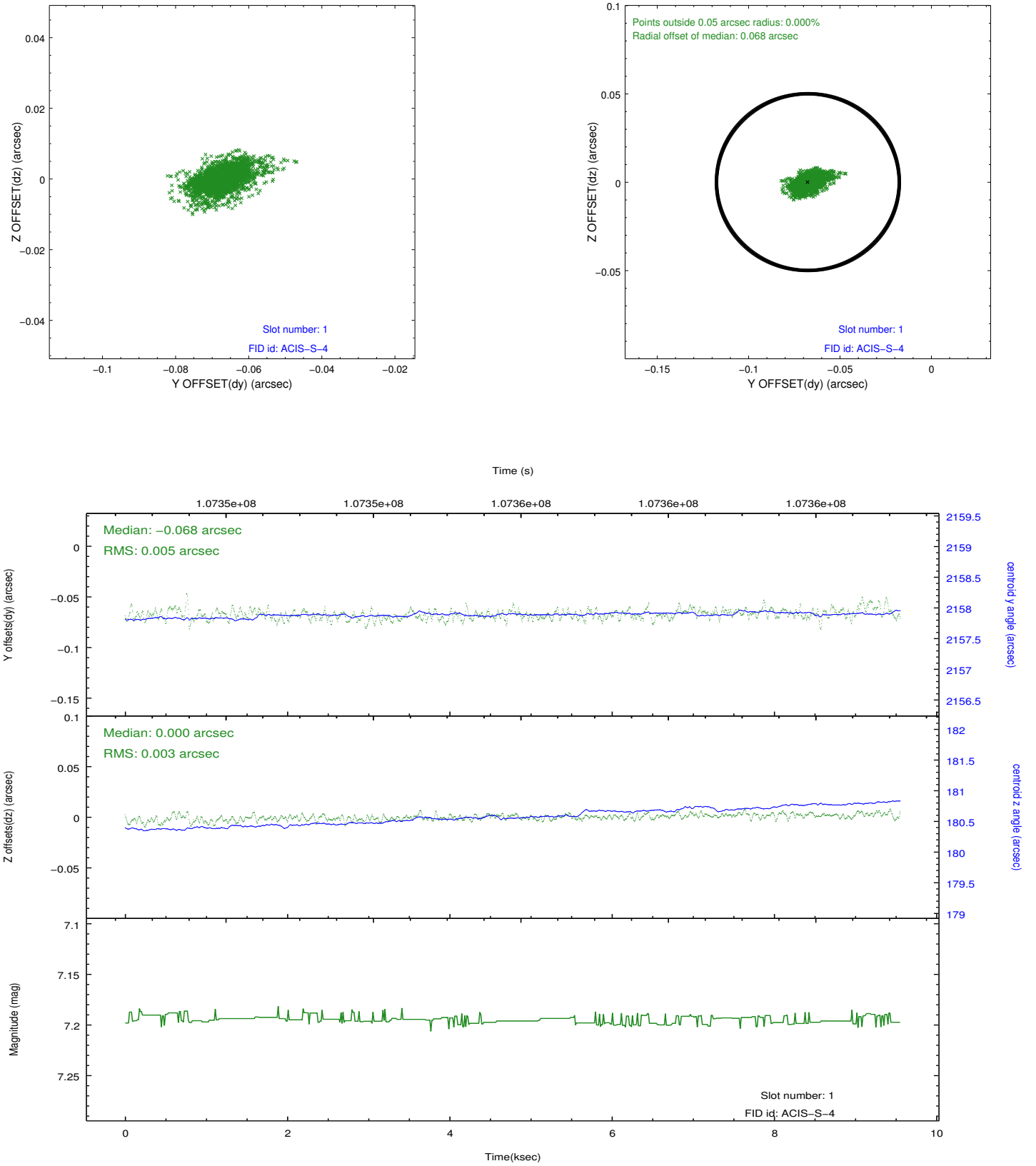


3.5 FID Slots

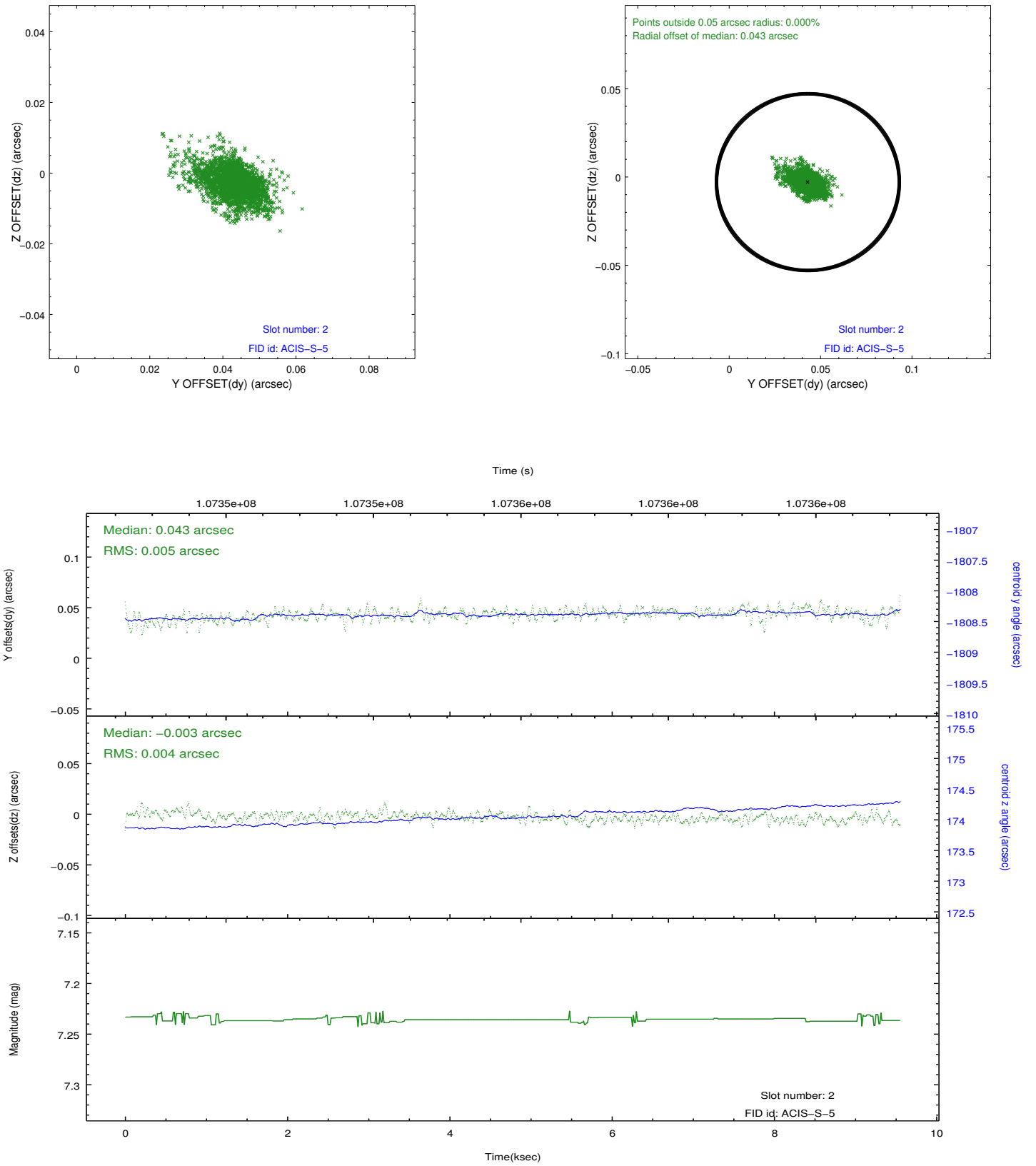
3.5.1 Slot 0



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)	2013.03.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15

A.2 Comments

The instruments were safed during this observation because of high radiation.

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Charge time for this ObsId remains at previous value of 15 ks, although with the current processing the charge time would have been 14.602 ks.