

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 380 - L2 Version 6
Chandra X-Ray Center

L2 Processing Date : Oct 22 2012

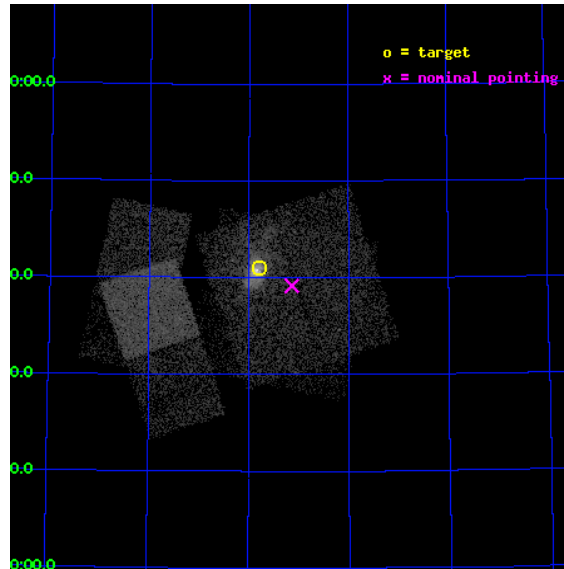
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1 Front

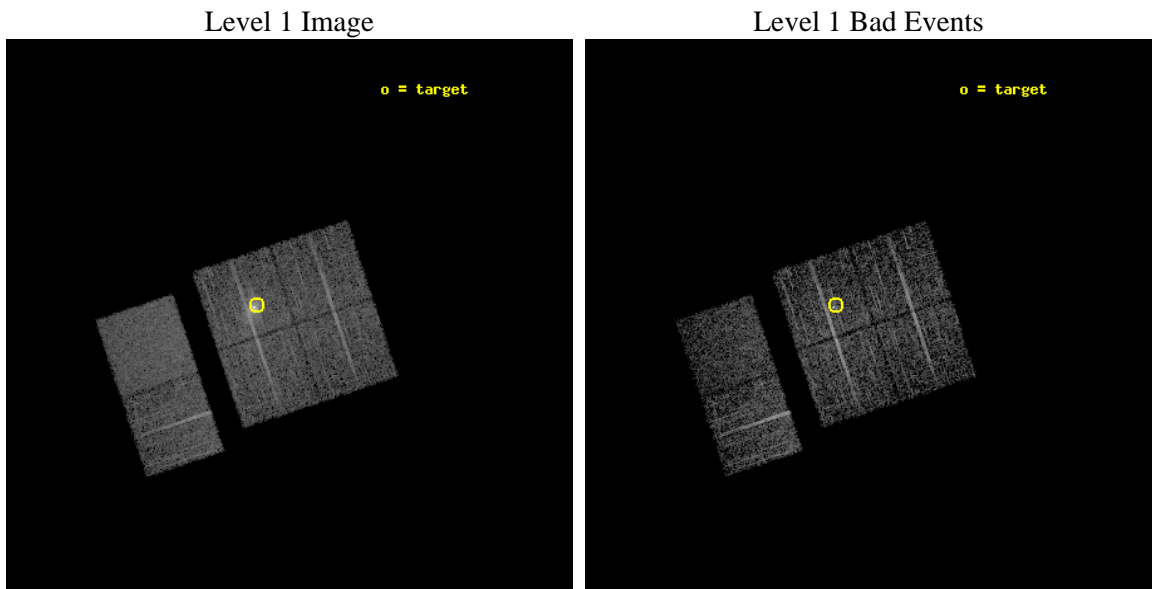
seq_num	700052	Sequence number
obs_id	380	Observation id
title	THE ORIGIN OF HARD X-RAYS FROM M82	Proposal title
observer	Dr. Stephen Murray	Principal investigator
object	M82	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.945833	Observer's specified target RA [deg]
dec_targ	69.682778	Observer's specified target Dec [deg]
ra_nom	148.78438867712	Nominal RA [deg]
dec_nom	69.65291358783	Nominal Dec [deg]
roll_nom	251.56273081347	Nominal Roll [deg]
revision	6	Processing version of data
ontime	5062.0495162755	Sum of GTIs [s]
livetime	4997.9507973002	Livetime [s]
ontime0	5061.9263962805	Sum of GTIs [s]
ontime1	5061.9674362838	Sum of GTIs [s]
ontime2	5062.0084762871	Sum of GTIs [s]
ontime3	5062.0495162755	Sum of GTIs [s]
ontime6	5062.1315962821	Sum of GTIs [s]
ontime7	5062.0905562788	Sum of GTIs [s]
l2events	51731	Number of level 2 events



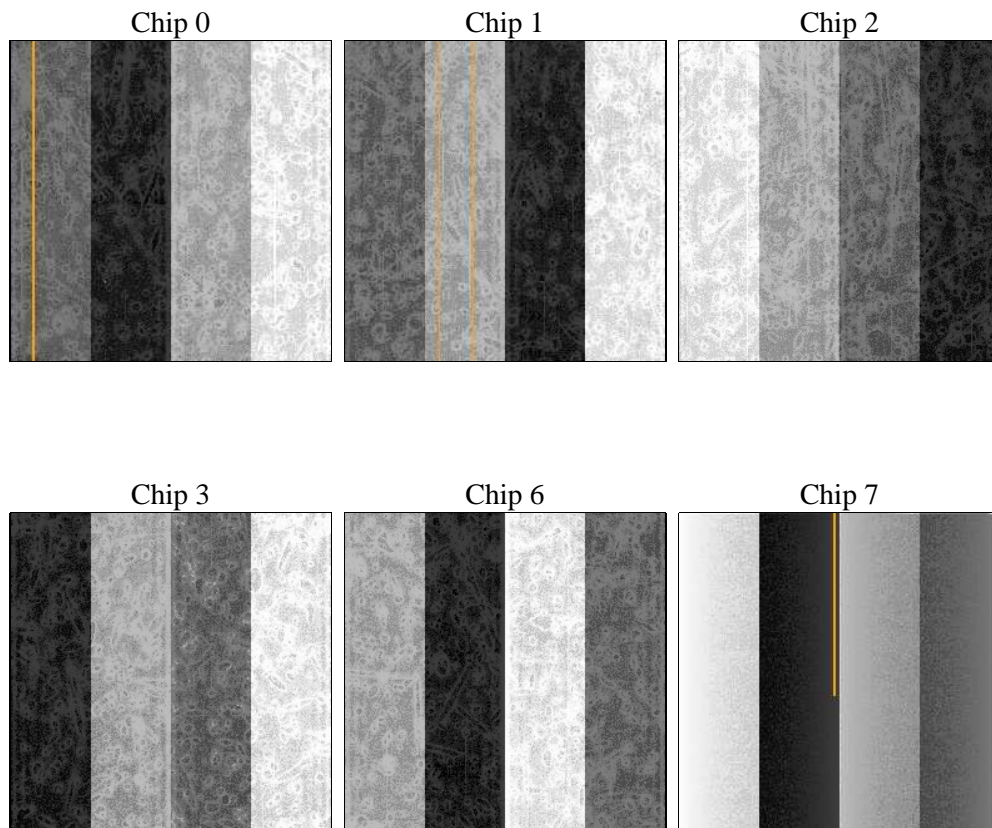
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	4000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	3862.4000035822	Sum of GTIs [s]
caldsver	4.5.2	 	ontime0	3862.4000035822	Sum of GTIs [s]
date	2012-10-22T12:47:20	Date and time of file creation	ontime1	3862.4000035822	Sum of GTIs [s]
revision	4	Processing version of data	ontime2	3862.4000035822	Sum of GTIs [s]
			ontime3	3862.4000035822	Sum of GTIs [s]
			ontime6	3862.4000035822	Sum of GTIs [s]
			ontime7	3862.4000035822	Sum of GTIs [s]
			l1events	176380	Number of level 1 events

2.1.4 Events

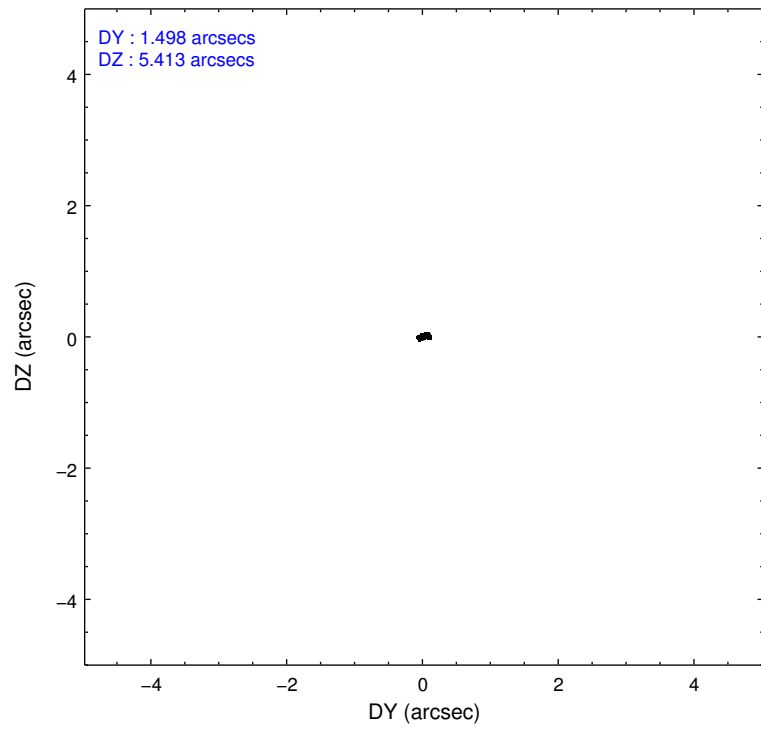
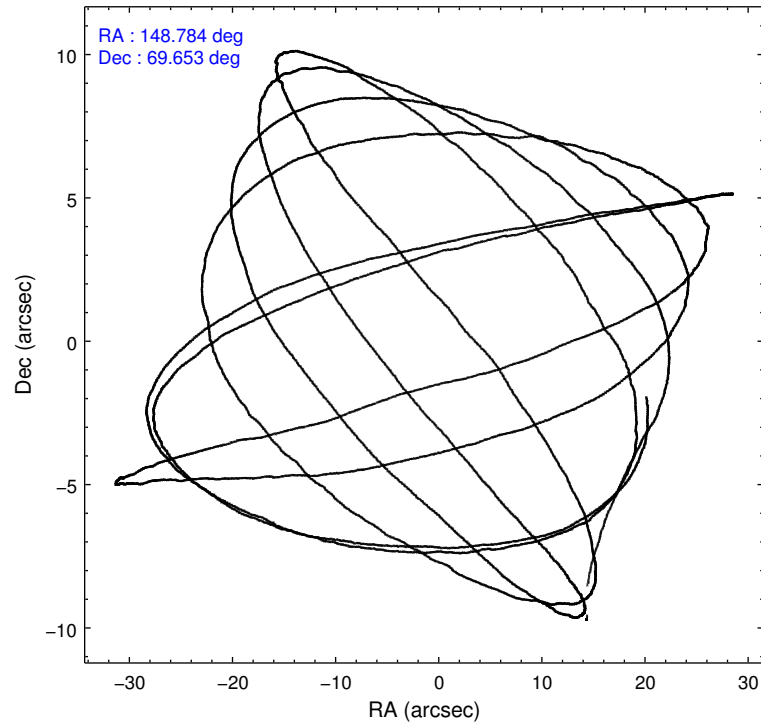
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	23863	24402	27305	41651	27906	31253	grade 0 events	1237	1461	1389	11448	1270	1343
rejected events	20938	21064	24294	25828	24856	17874		5%	5%	5%	27%	4%	4%
rejected %	87%	86%	88%	62%	89%	57%	grade 1 events	17	9	13	451	6	28
								0%	0%	0%	1%	0%	0%
							grade 2 events	594	659	578	2004	613	2584
								2%	2%	2%	4%	2%	8%
							grade 3 events	299	328	286	684	301	1224
								1%	1%	1%	1%	1%	3%
							grade 4 events	279	332	274	733	295	1235
								1%	1%	1%	1%	1%	3%
							grade 5 events	851	912	811	1349	987	3001
								3%	3%	2%	3%	3%	9%
							grade 6 events	517	561	488	970	573	7002
								2%	2%	1%	2%	2%	22%
							grade 7 events	20069	20140	23466	24012	23861	14836
								84%	82%	85%	57%	85%	47%

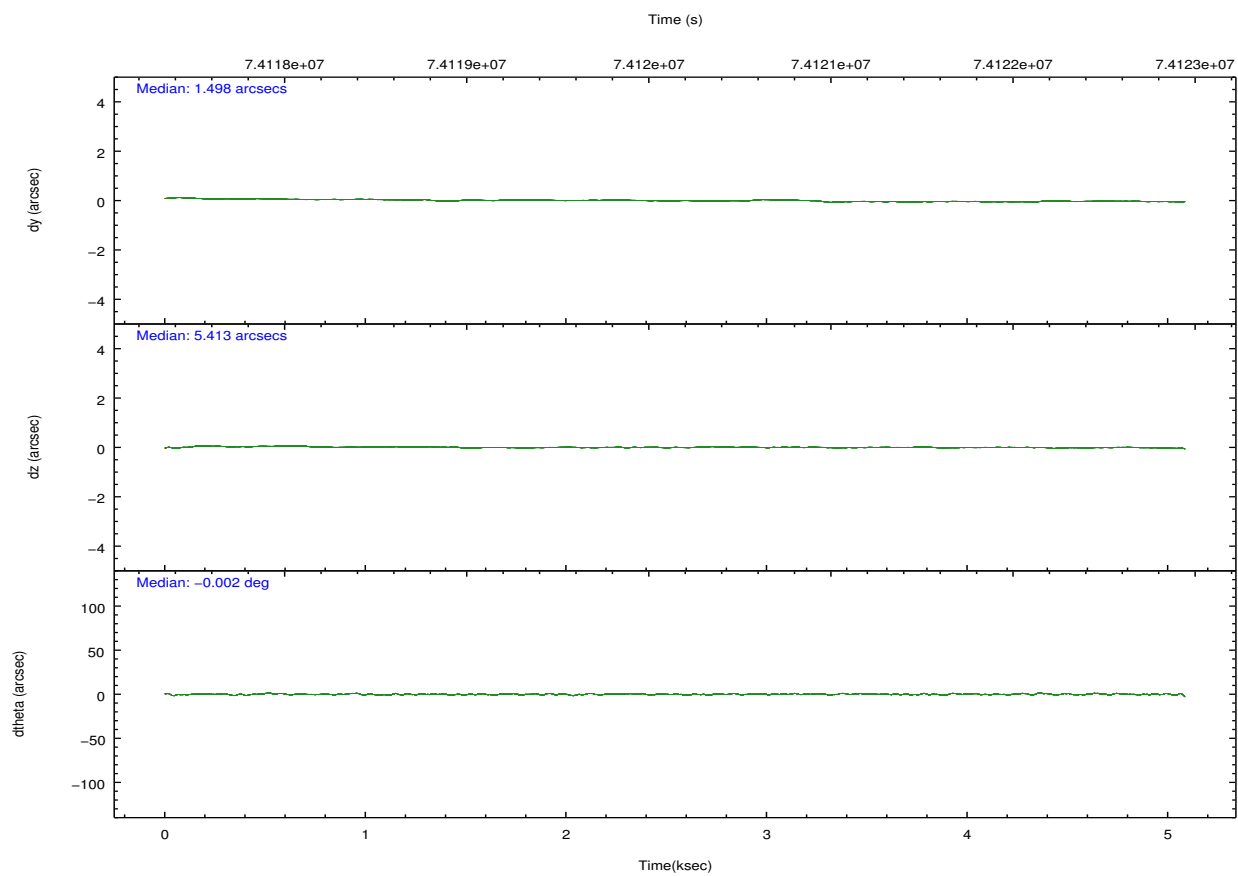
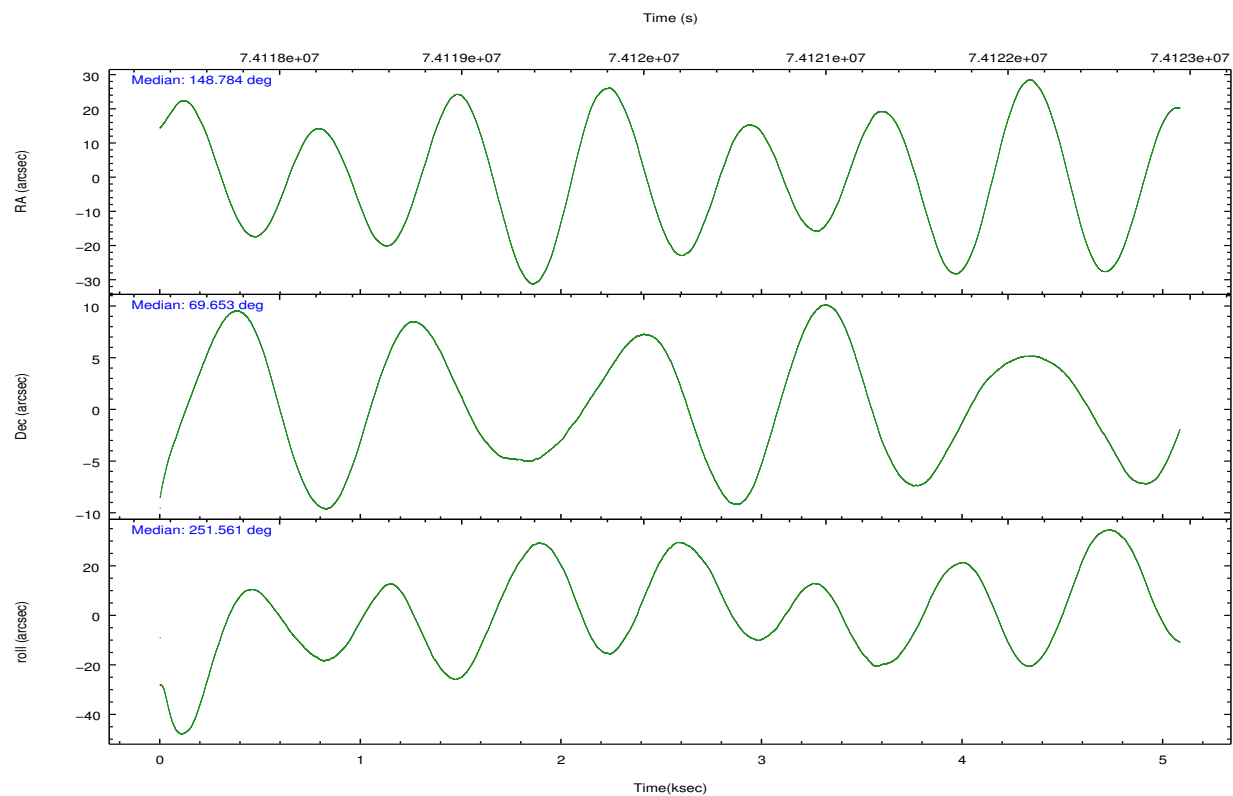
2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-012367	ACIS-012367
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	148.768814	148.784388677119
[deg] Pointing Dec	69.680013	69.65291358782954
[deg] Pointing Roll	251.368621	251.5627308134718
[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)	74118687.184000	74117285.61753801
Observation start date	2000-05-07T20:30:23	2000-05-07T20:08:05
[s] Observation end time (MET)	74122687.184000	74123990.655284
Observation end date	2000-05-07T21:37:03	2000-05-07T21:59:50
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	3.200000	3.2

2.3 Aspect



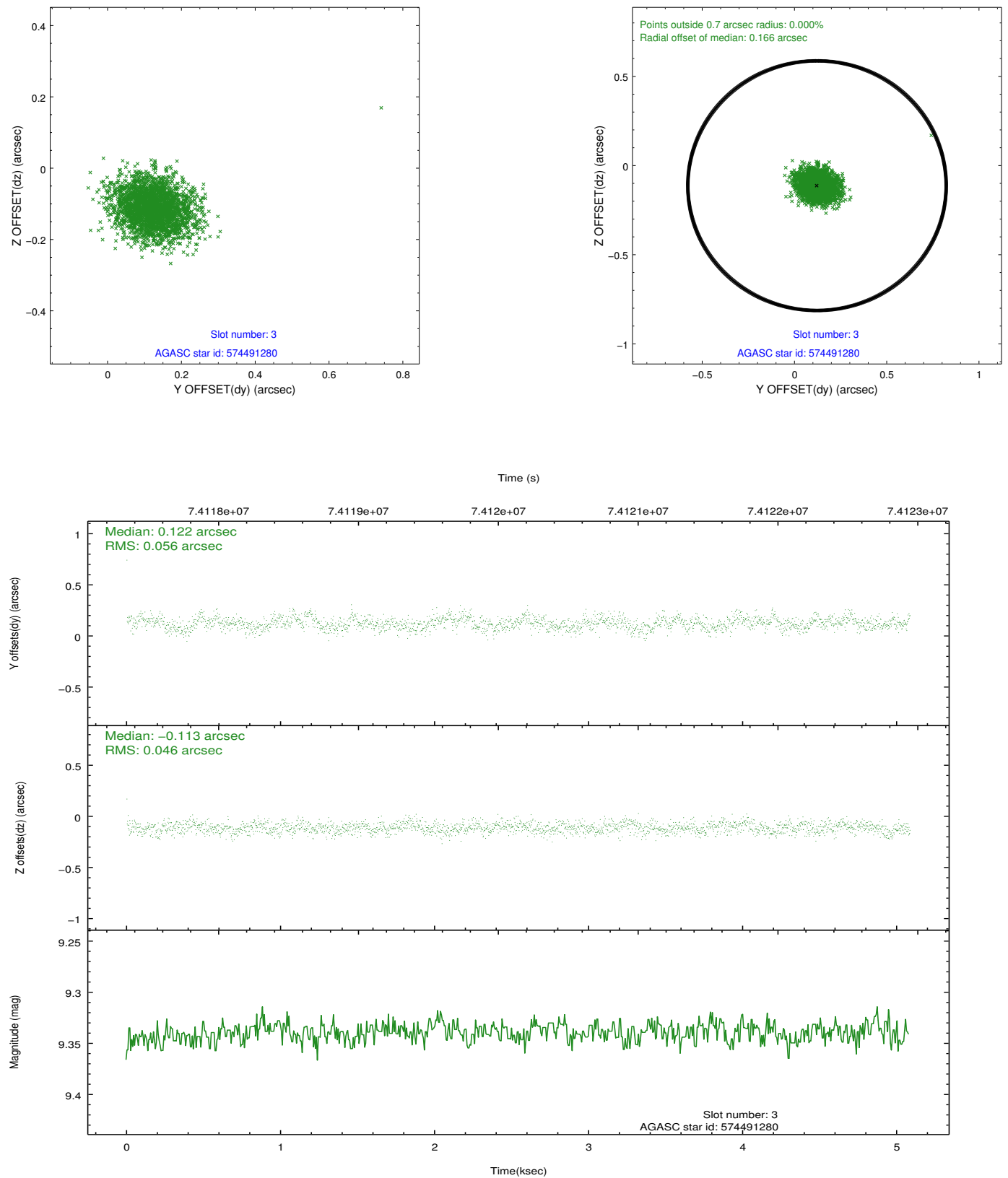


Slot Statistics

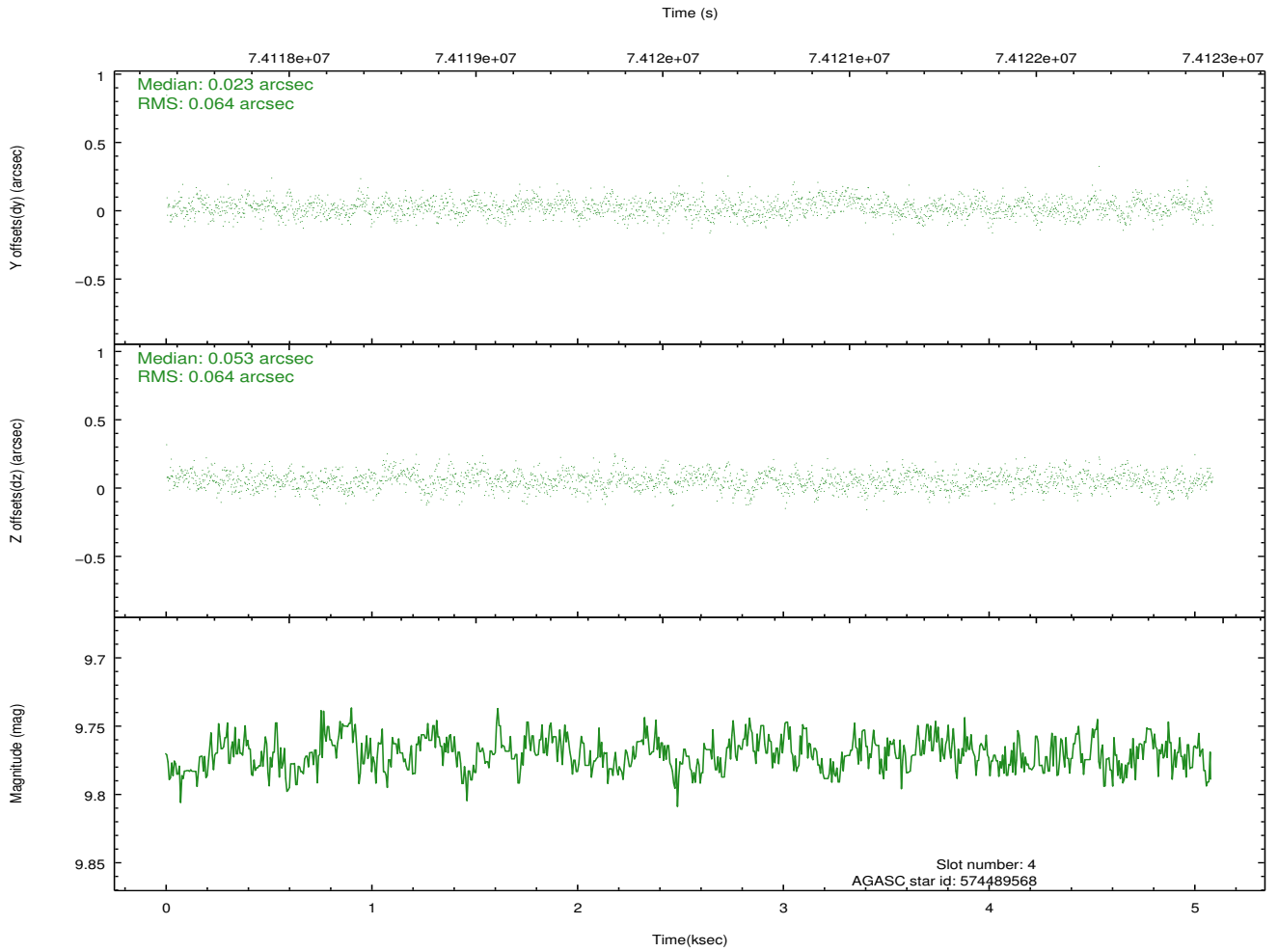
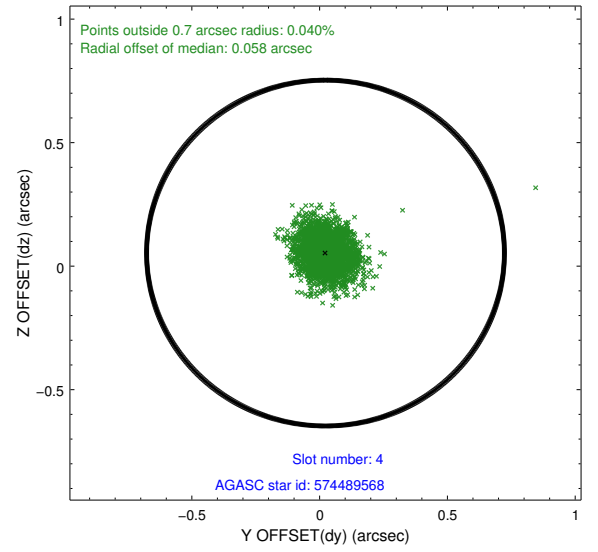
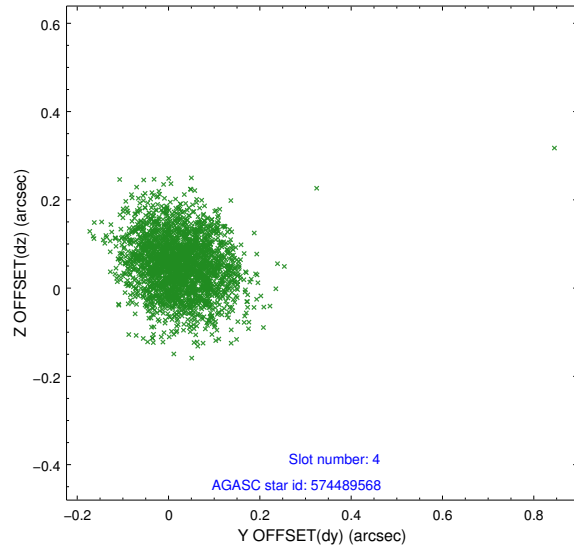
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.16	1241	-0.026	-0.039	0.008	0.014	0.000000	0.000000	-755.87	-835.17
1	FID	ACIS-I-4	7.19	1241	-0.046	0.034	0.006	0.010	0.000000	0.000000	2157.64	1070.48
2	FID	ACIS-I-5	7.23	1241	-0.029	0.073	0.008	0.013	0.000000	0.000000	-1808.15	1069.73
3	GUIDE	574491280	9.34	2481	0.122	-0.113	0.076	0.125	148.611567	69.450135	847.26	75.69
4	GUIDE	574489568	9.77	2479	0.023	0.053	0.095	0.152	147.223974	69.438157	1425.74	-1580.54
5	GUIDE	574886464	9.80	2481	-0.143	0.022	0.105	0.177	149.898674	70.203982	-2239.53	697.74
6	GUIDE	574886288	9.83	2480	-0.034	0.057	0.106	0.172	149.952718	70.139627	-2045.06	839.01
7	GUIDE	574491712	9.91	2479	0.030	-0.022	0.099	0.165	147.262590	69.570889	953.72	-1675.12

2.4 Star Slots

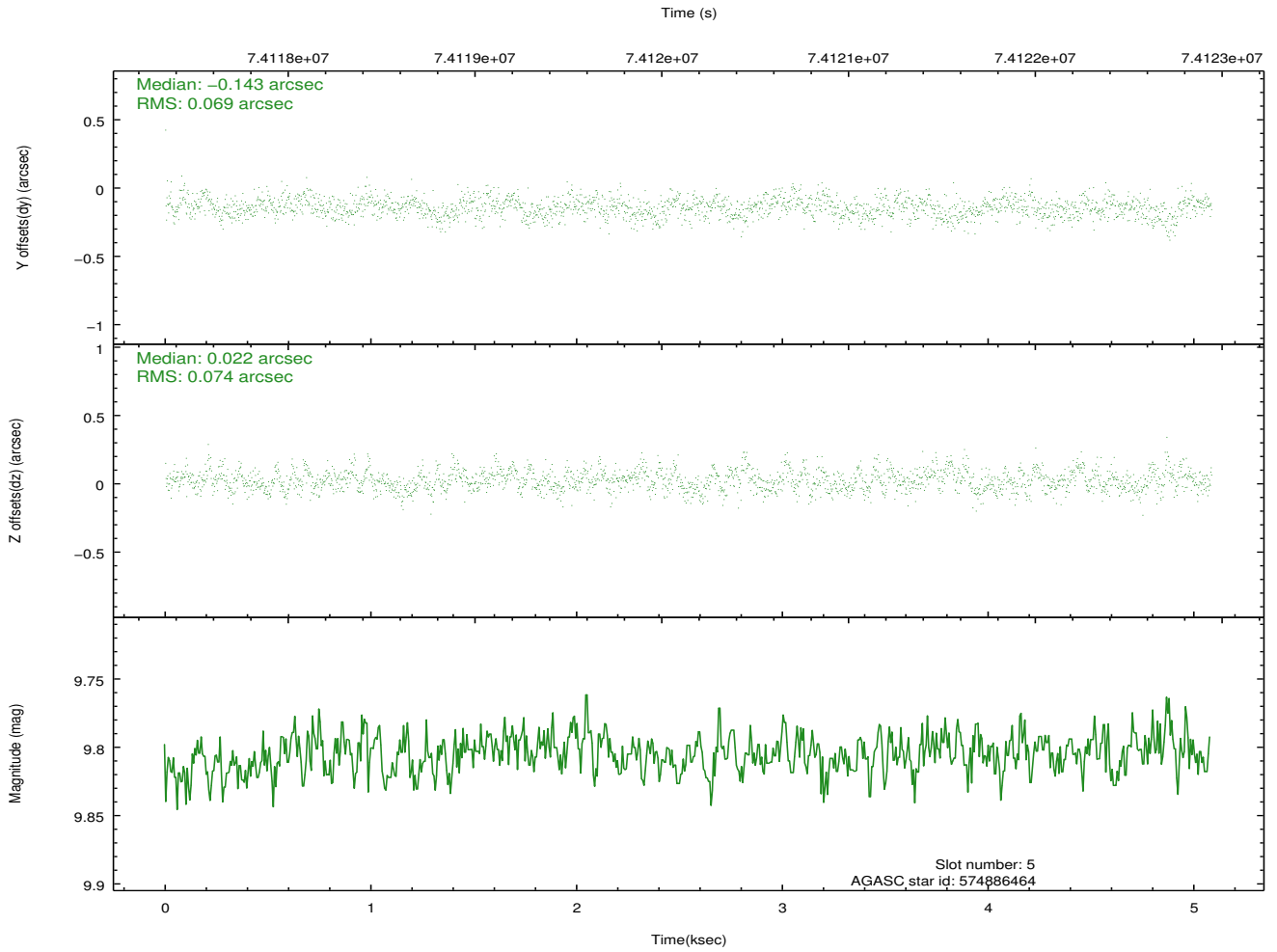
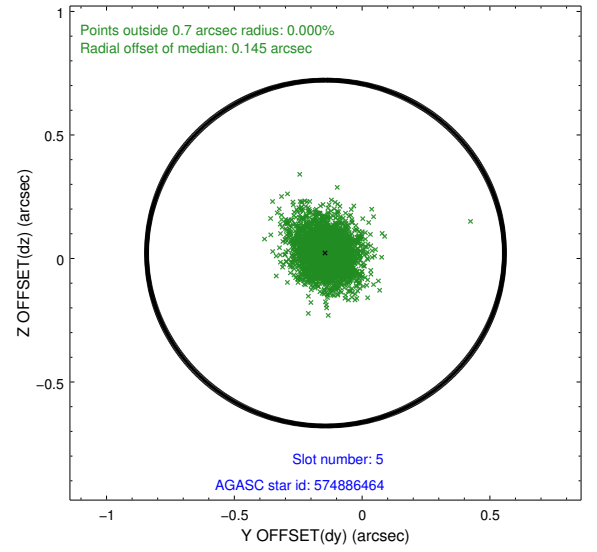
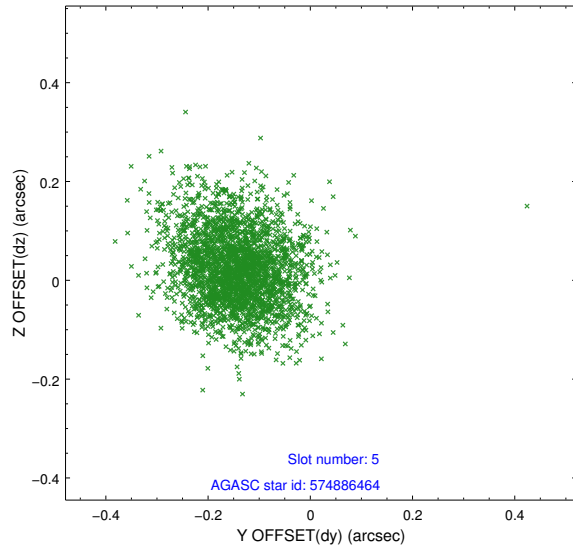
2.4.1 Slot 3



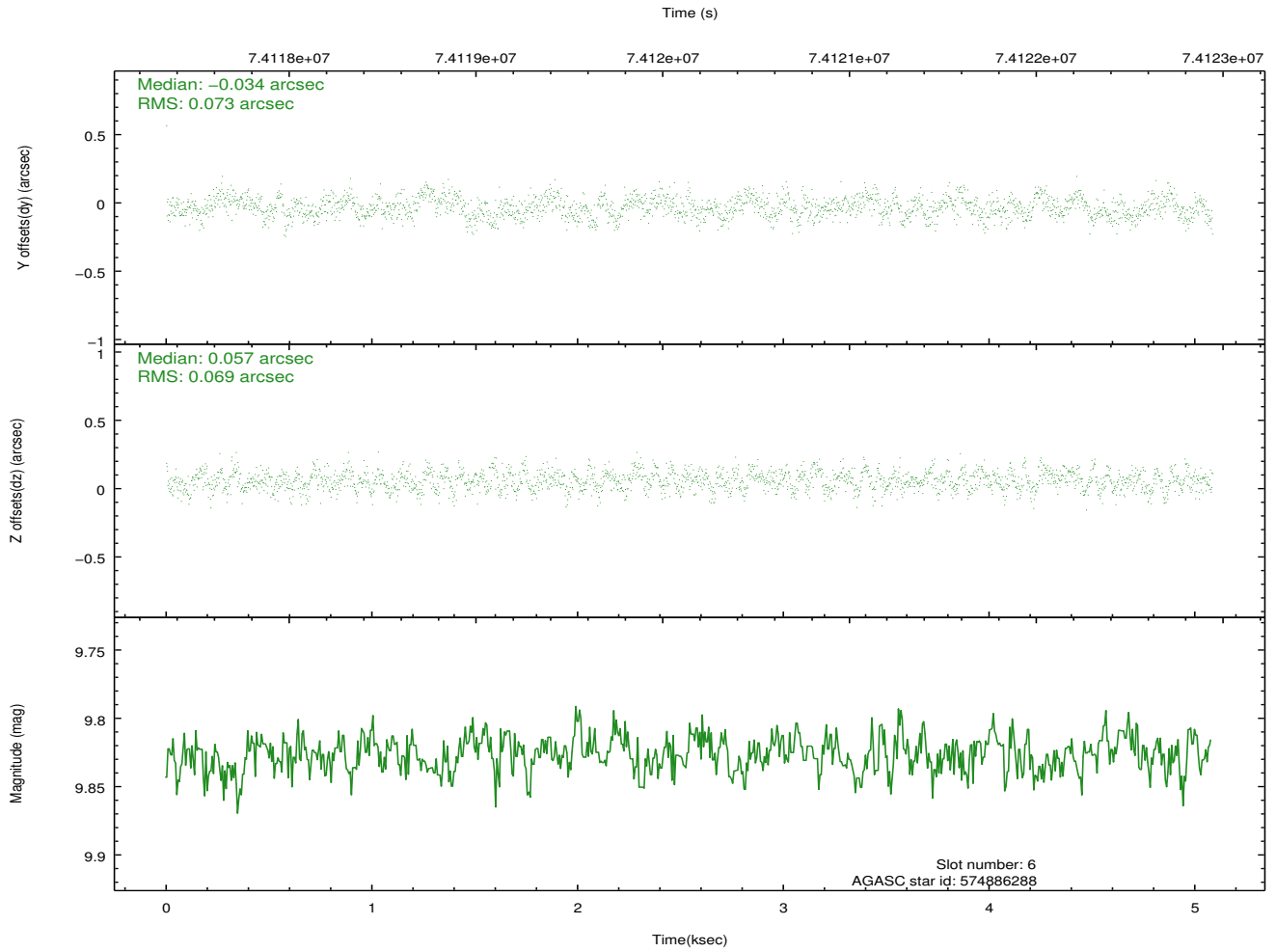
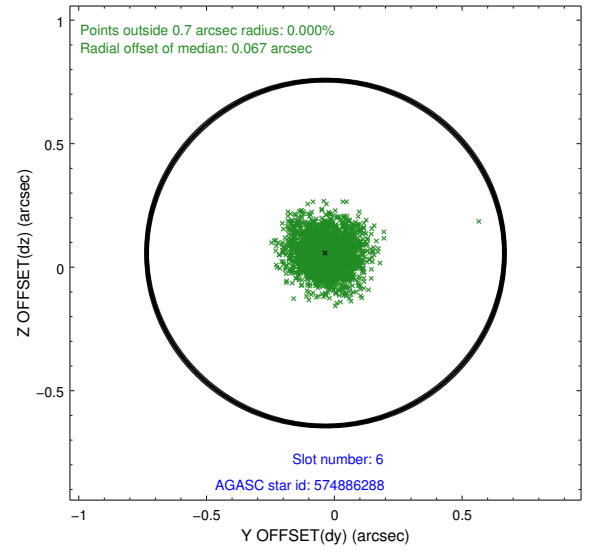
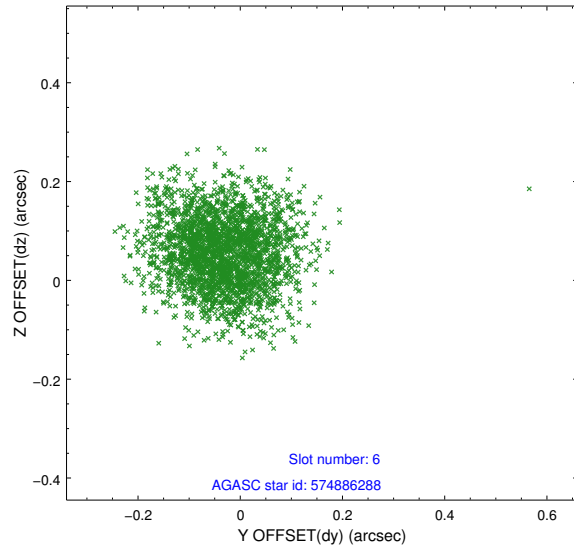
2.4.2 Slot 4



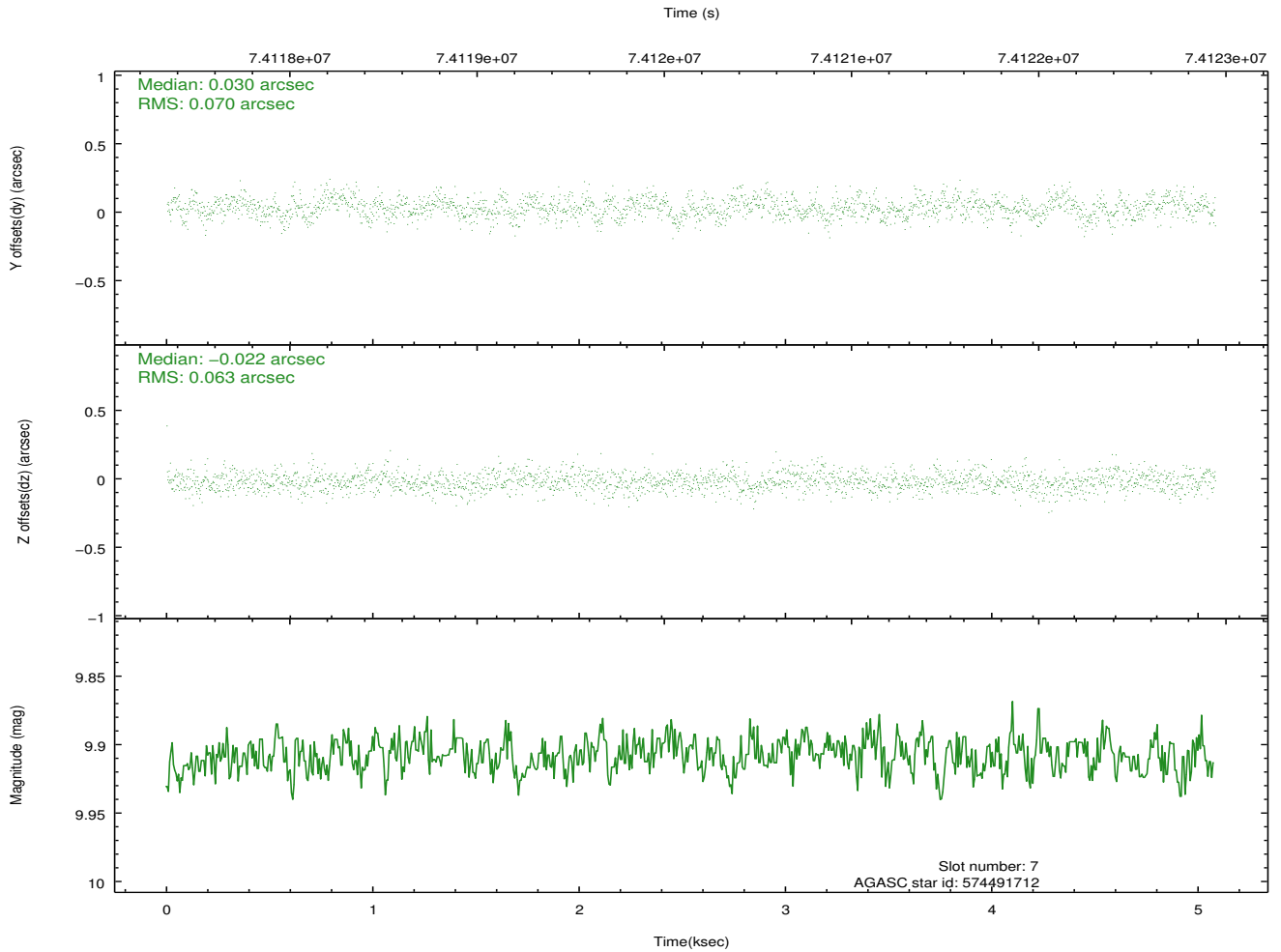
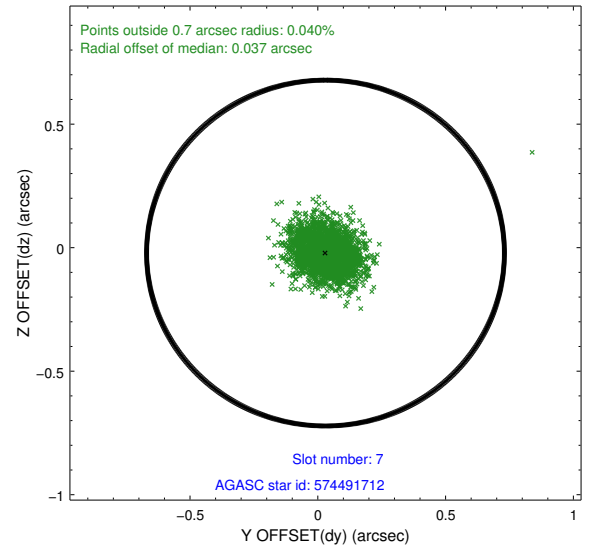
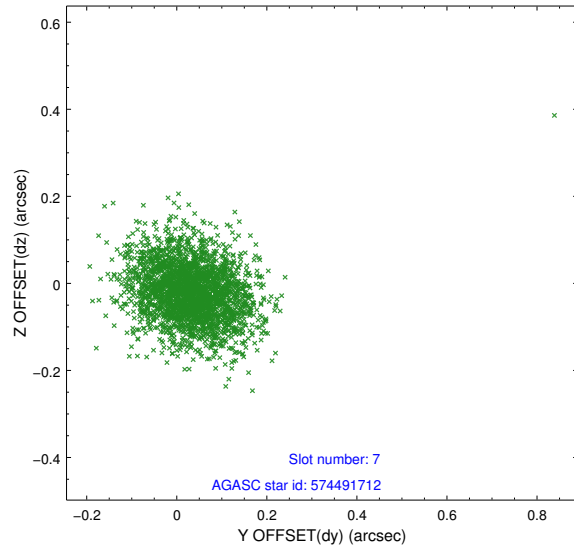
2.4.3 Slot 5



2.4.4 Slot 6

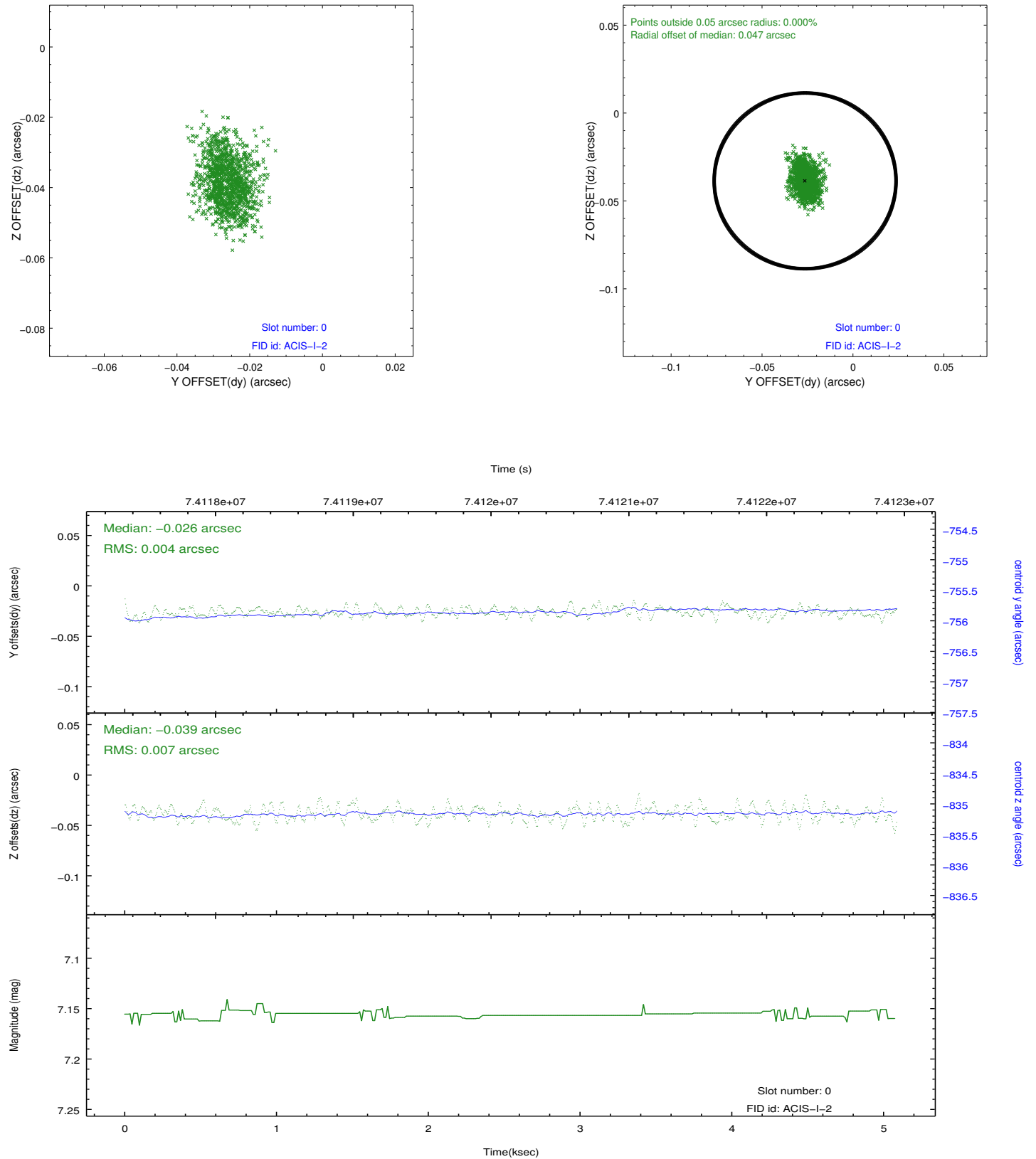


2.4.5 Slot 7

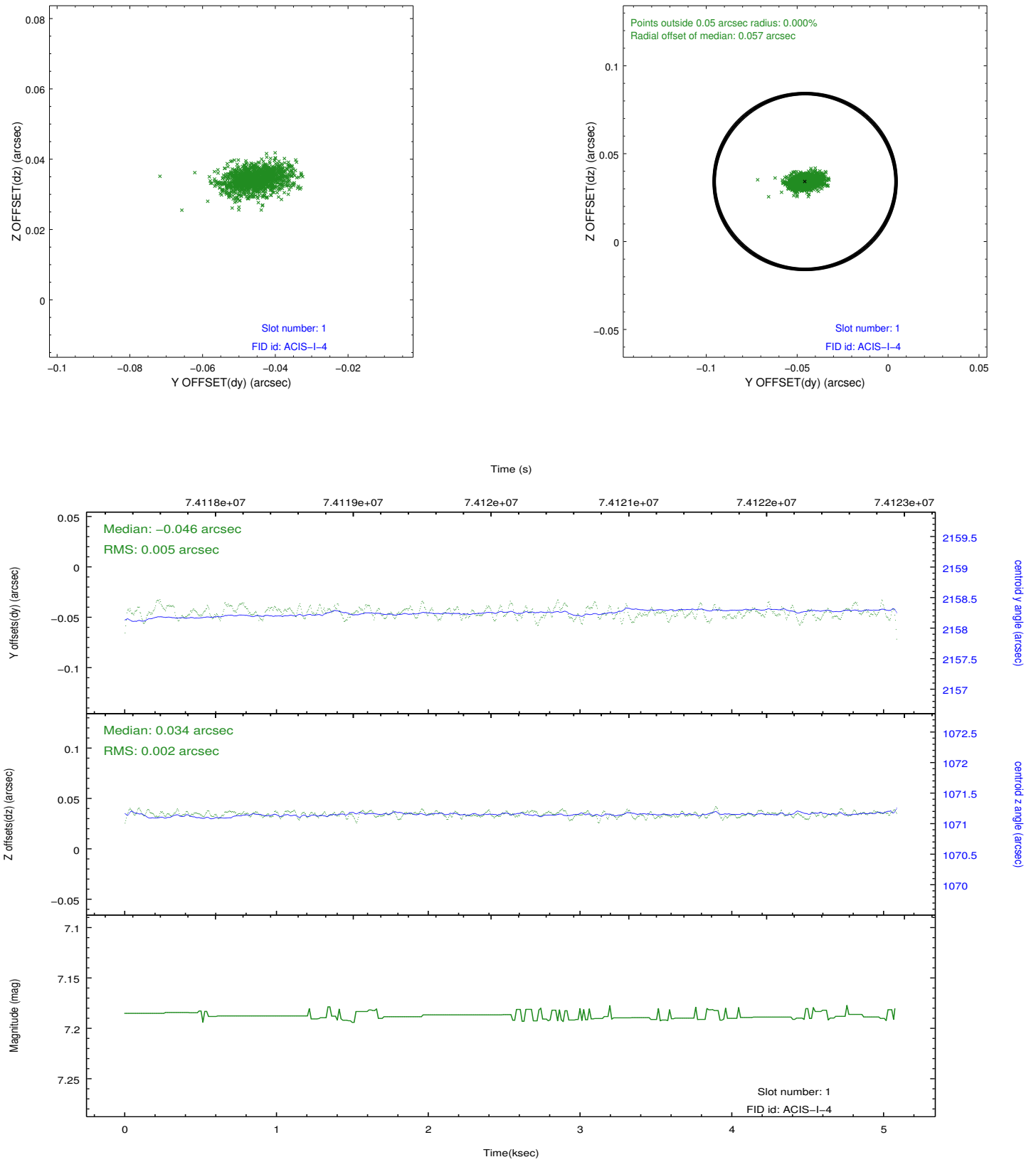


2.5 FID Slots

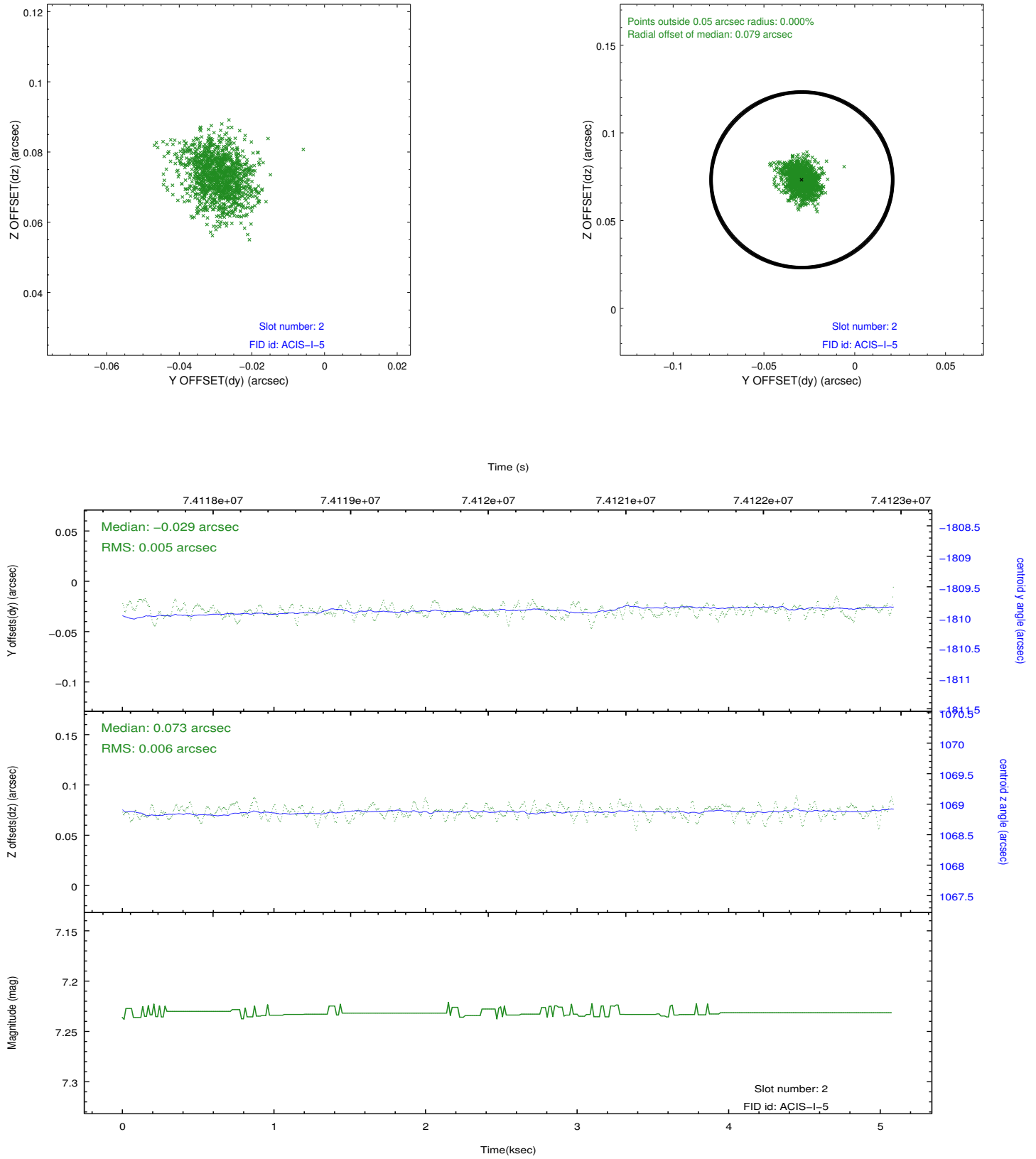
2.5.1 Slot 0



2.5.2 Slot 1



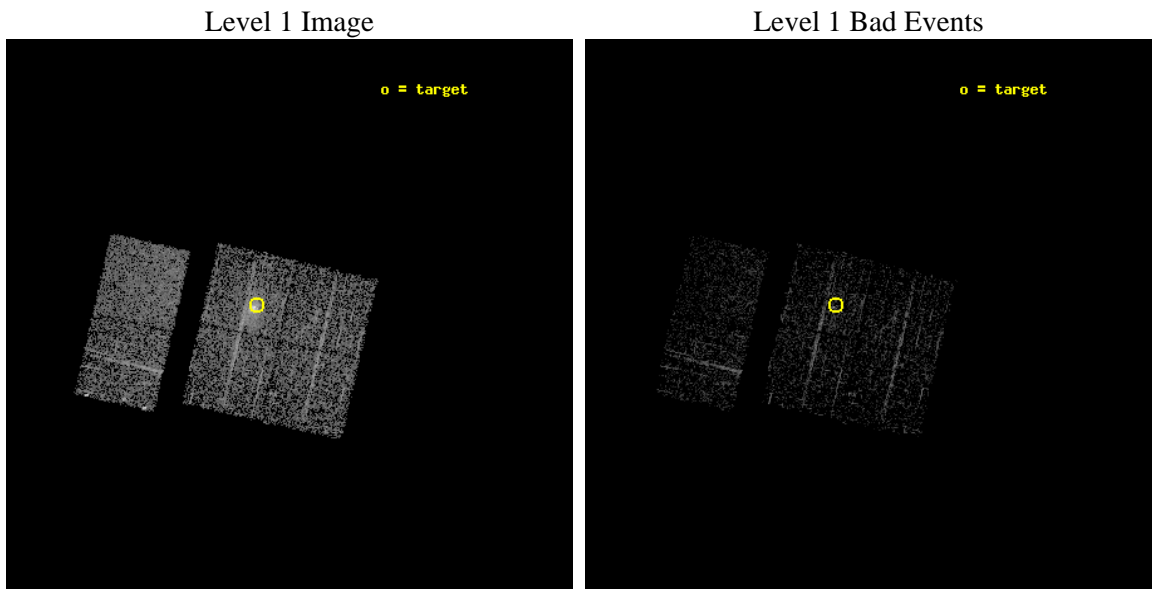
2.5.3 Slot 2



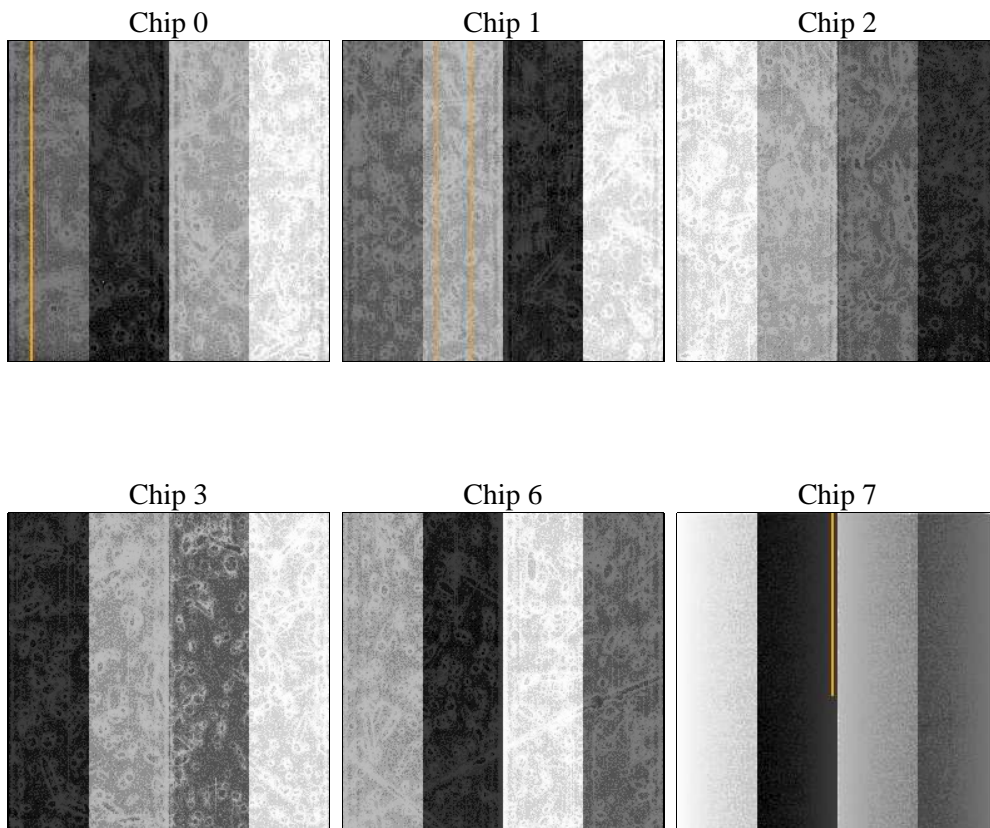
3 OBI

3.1 OBI

3.1.1 Images



3.1.2 Bias



3.1.3 Parameters

obi_num	2	Obi number	sched_exp_time	1241.721000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	1199.6495126933	Sum of GTIs [s]
caldsver	4.5.2	 	ontime0	1199.5263926983	Sum of GTIs [s]
date	2012-10-22T12:48:21	Date and time of file creation	ontime1	1199.5674327016	Sum of GTIs [s]
revision	5	Processing version of data	ontime2	1199.6084727049	Sum of GTIs [s]
			ontime3	1199.6495126933	Sum of GTIs [s]
			ontime6	1199.7315926999	Sum of GTIs [s]
			ontime7	1199.6905526966	Sum of GTIs [s]
			l1events	52908	Number of level 1 events

3.1.4 Events

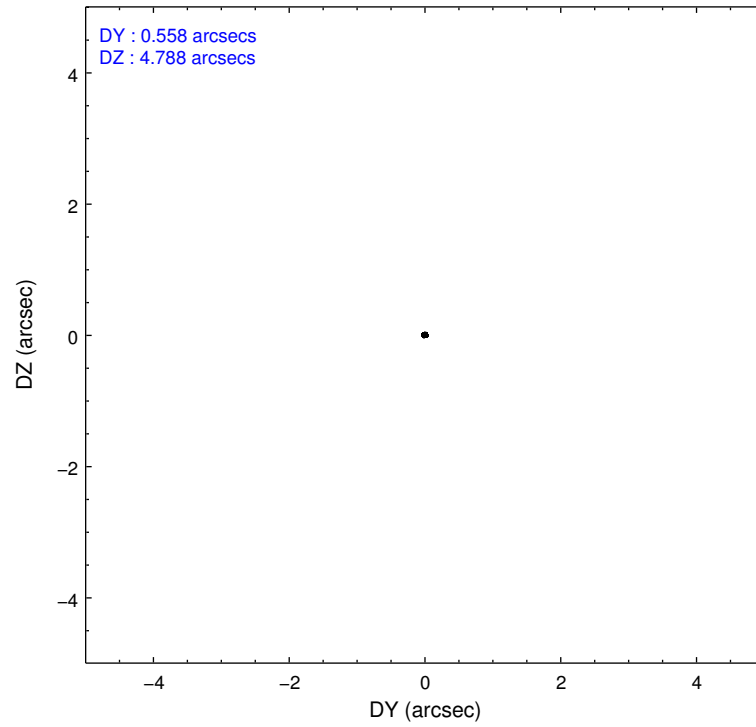
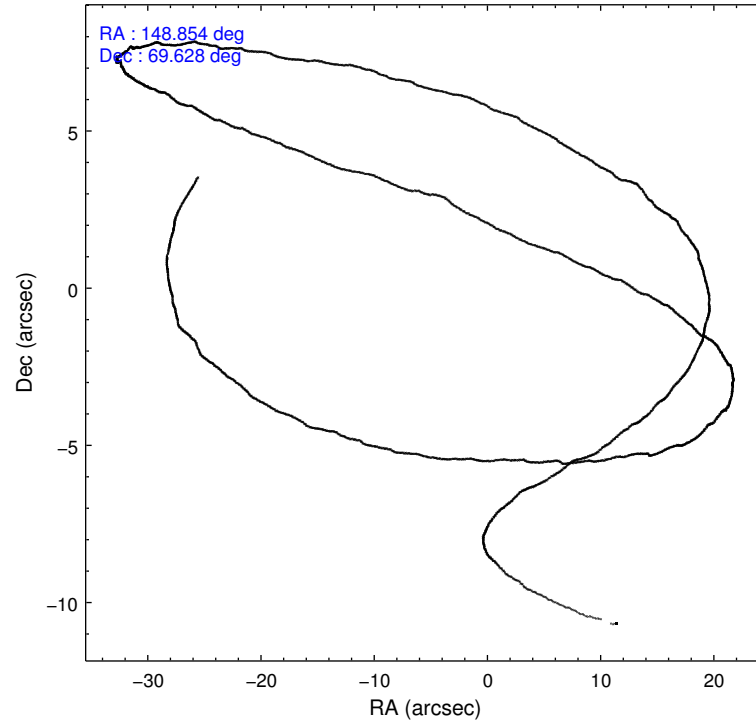
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	7203	7604	7937	11984	9048	9132
rejected events	5805	6161	6577	7056	6875	5152
rejected %	80%	81%	82%	58%	75%	56%

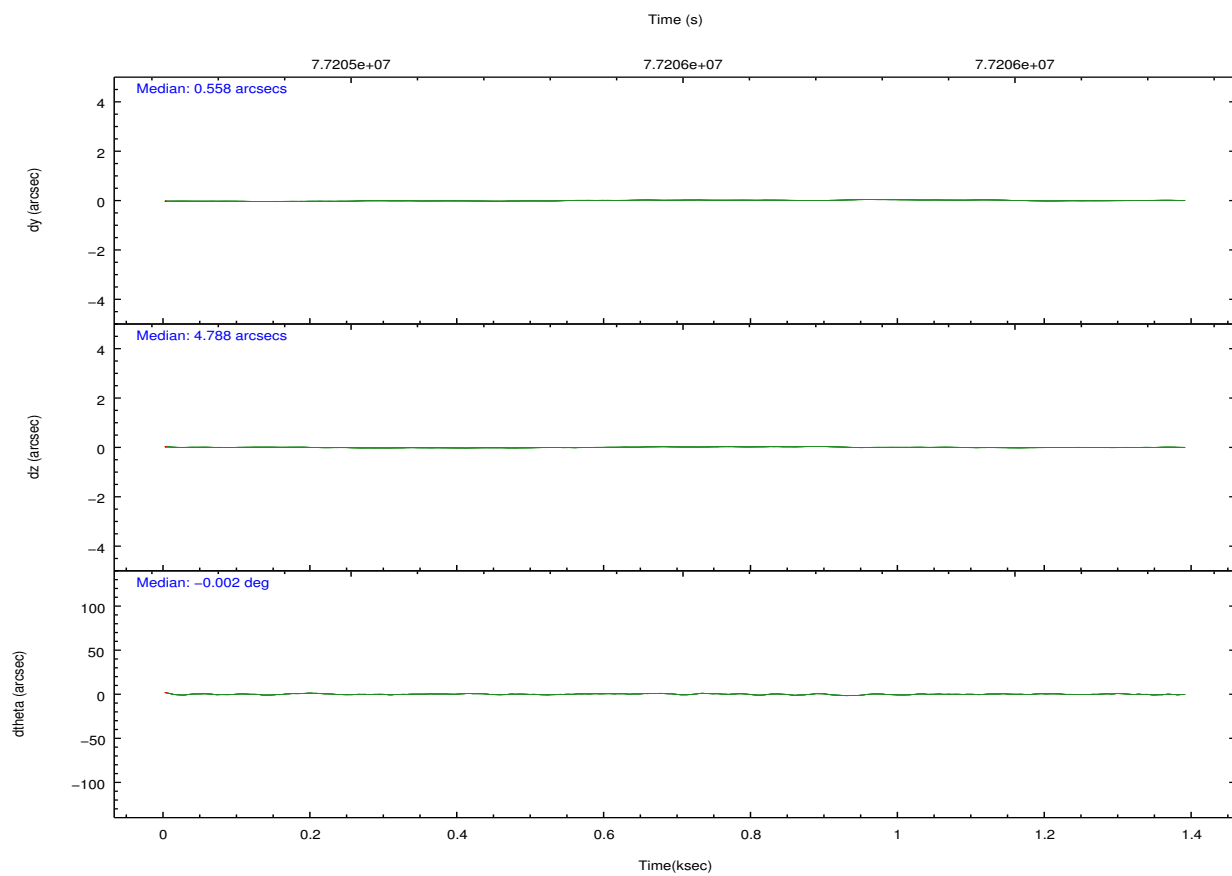
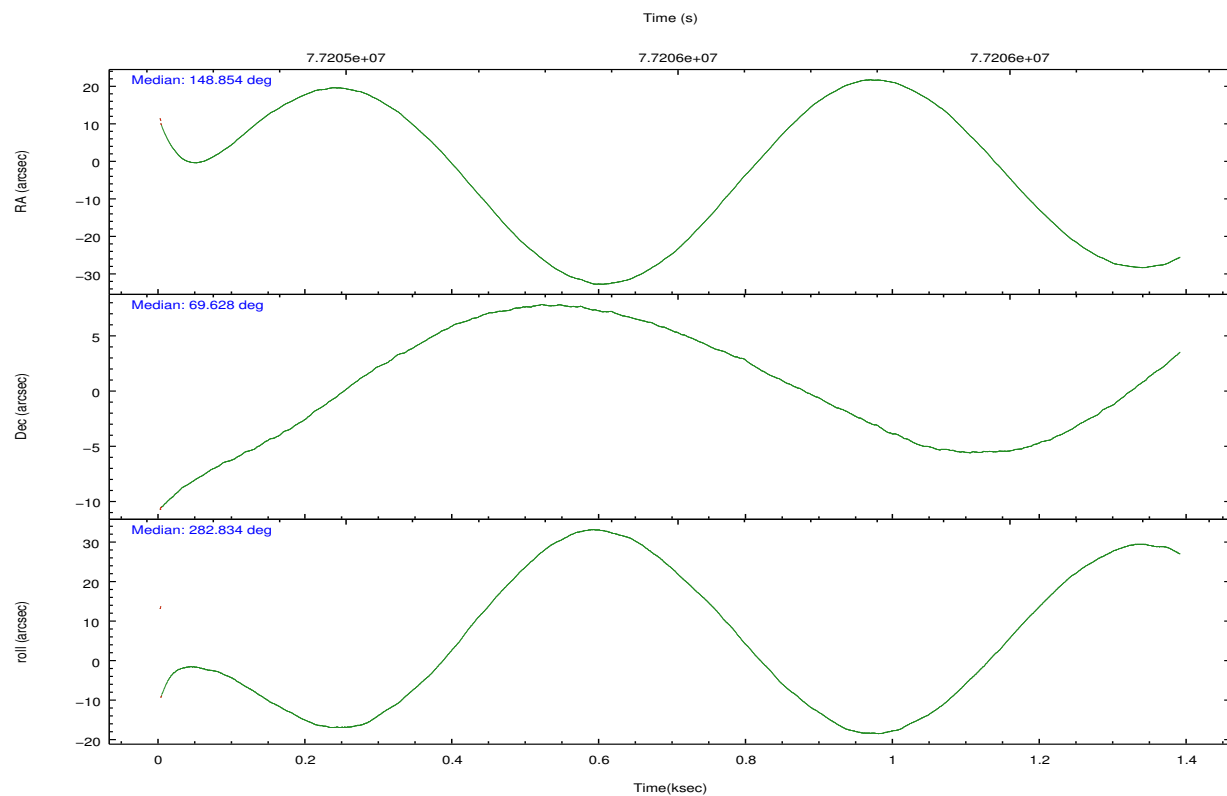
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	636	603	622	3530	1068	390
	8%	7%	7%	29%	11%	4%
grade 1 events	2	2	3	55	14	7
	0%	0%	0%	0%	0%	0%
grade 2 events	347	399	327	741	710	808
	4%	5%	4%	6%	7%	8%
grade 3 events	86	95	85	177	86	346
	1%	1%	1%	1%	0%	3%
grade 4 events	91	109	93	171	93	357
	1%	1%	1%	1%	1%	3%
grade 5 events	214	249	227	298	310	822
	2%	3%	2%	2%	3%	9%
grade 6 events	252	241	244	335	226	2095
	3%	3%	3%	2%	2%	22%
grade 7 events	5575	5906	6336	6677	6541	4307
	77%	77%	79%	55%	72%	47%

3.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	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	148.798859	148.8529666755527	Subarray requested	NONE	NONE
[deg] Pointing Dec	69.648471	69.62779964623884	Alternating exposures requested	N	N
[deg] Pointing Roll	282.684132	282.8420707836268	[s] Primary exposure time	3.200000	3.2
[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)	77204947.184000	77203909.743536			
Observation start date	2000-06-12T13:48:03	2000-06-12T13:31:49			
[s] Observation end time (MET)	77206189.184000	77206498.38113099			
Observation end date	2000-06-12T14:08:45	2000-06-12T14:14:58			
Read mode	TIMED	TIMED			

3.3 Aspect

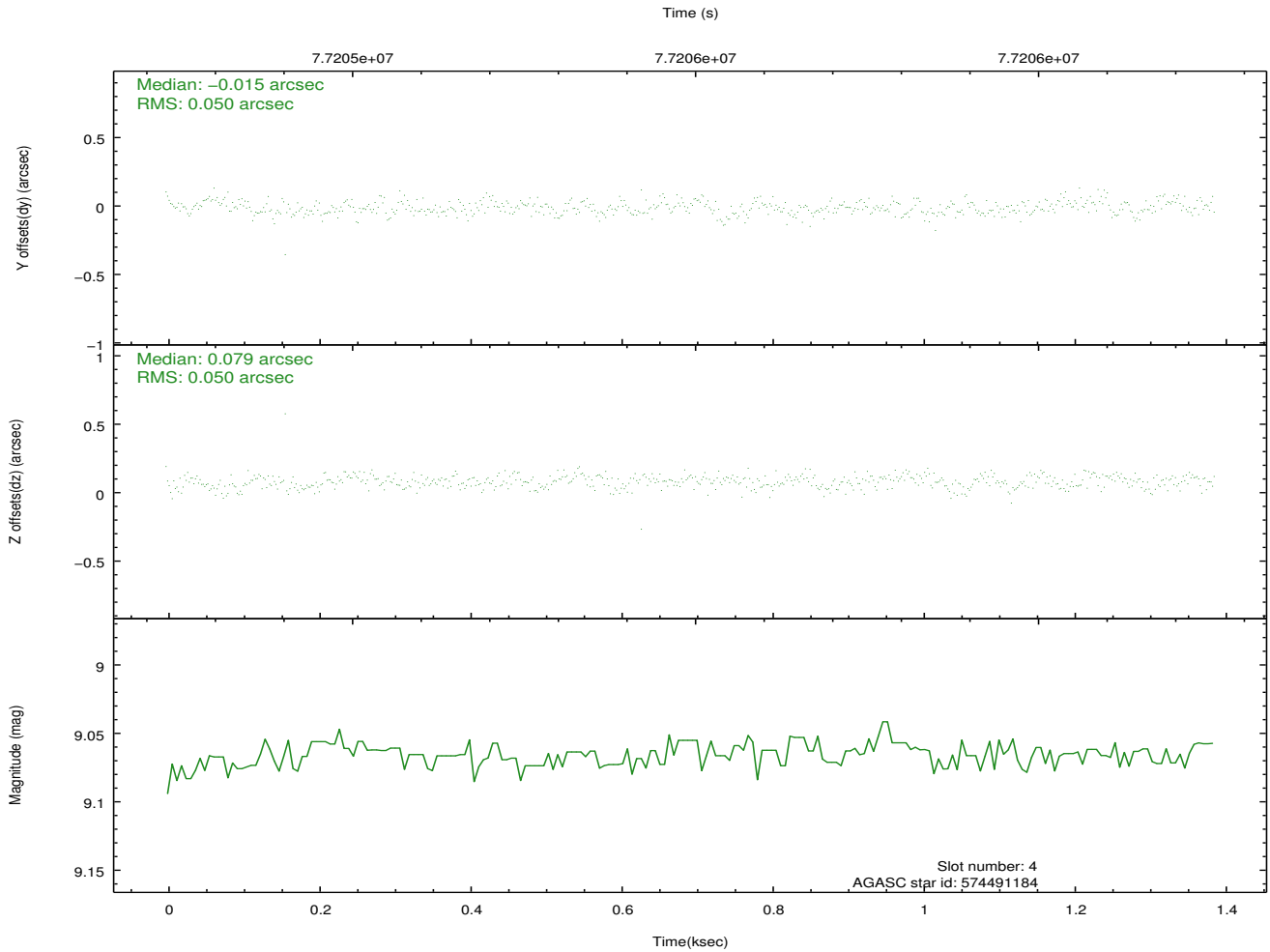
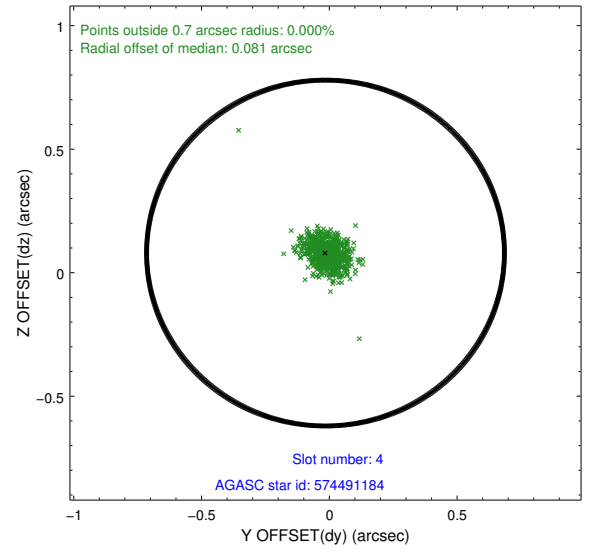
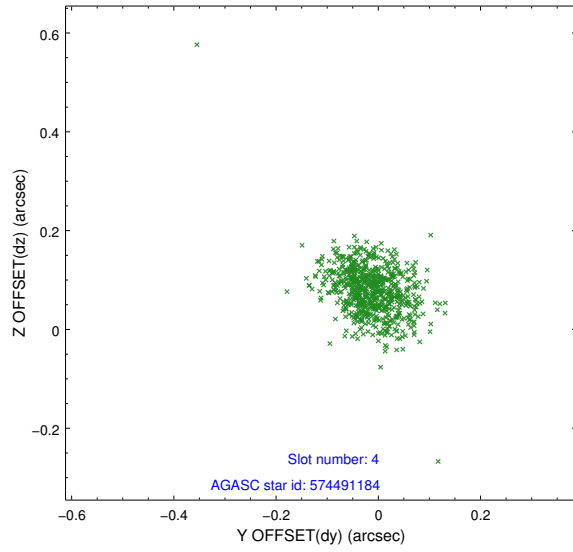




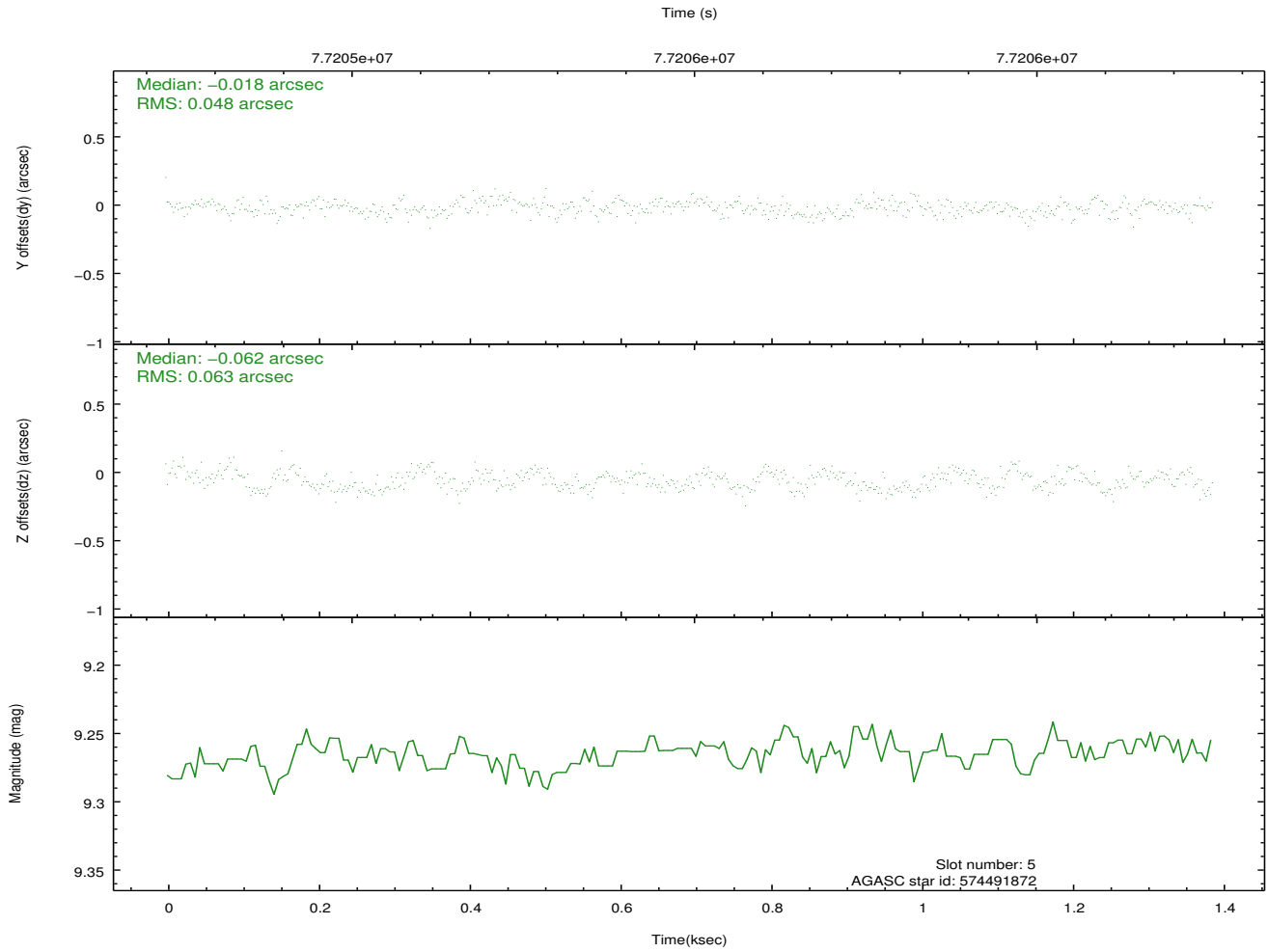
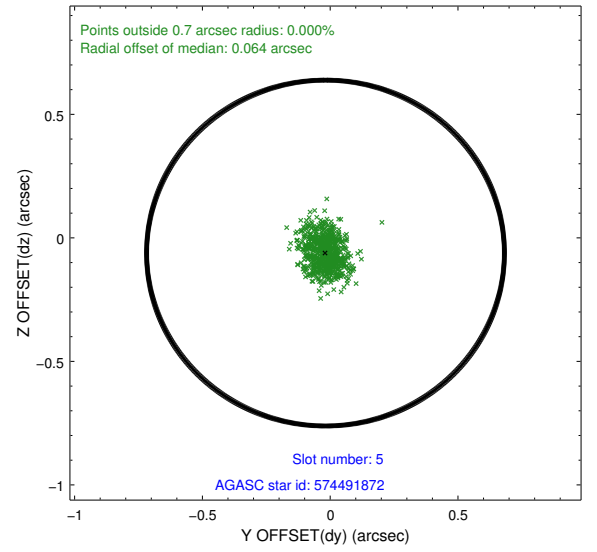
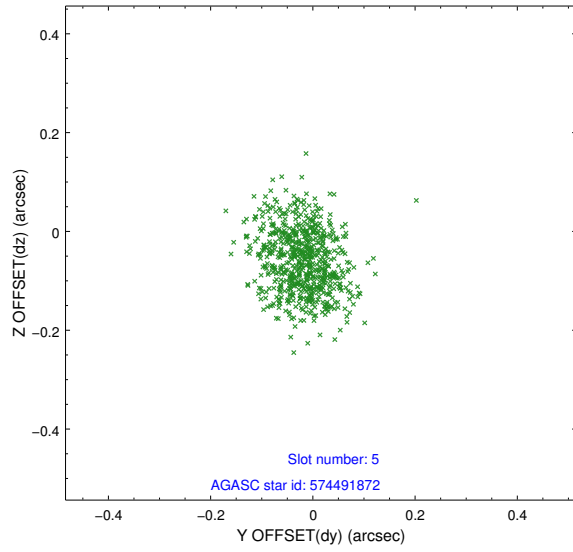
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-2	7.16	1241	-0.026	-0.039	0.008	0.014	0.000000	0.000000	-755.87	-835.17
1	FID	ACIS-I-4	7.19	1241	-0.046	0.034	0.006	0.010	0.000000	0.000000	2157.64	1070.48
2	FID	ACIS-I-5	7.23	1241	-0.029	0.073	0.008	0.013	0.000000	0.000000	-1808.15	1069.73
3	GUIDE	574491280	9.34	2481	0.122	-0.113	0.076	0.125	148.611567	69.450135	847.26	75.69
4	GUIDE	574489568	9.77	2479	0.023	0.053	0.095	0.152	147.223974	69.438157	1425.74	-1580.54
5	GUIDE	574886464	9.80	2481	-0.143	0.022	0.105	0.177	149.898674	70.203982	-2239.53	697.74
6	GUIDE	574886288	9.83	2480	-0.034	0.057	0.106	0.172	149.952718	70.139627	-2045.06	839.01
7	GUIDE	574491712	9.91	2479	0.030	-0.022	0.099	0.165	147.262590	69.570889	953.72	-1675.12

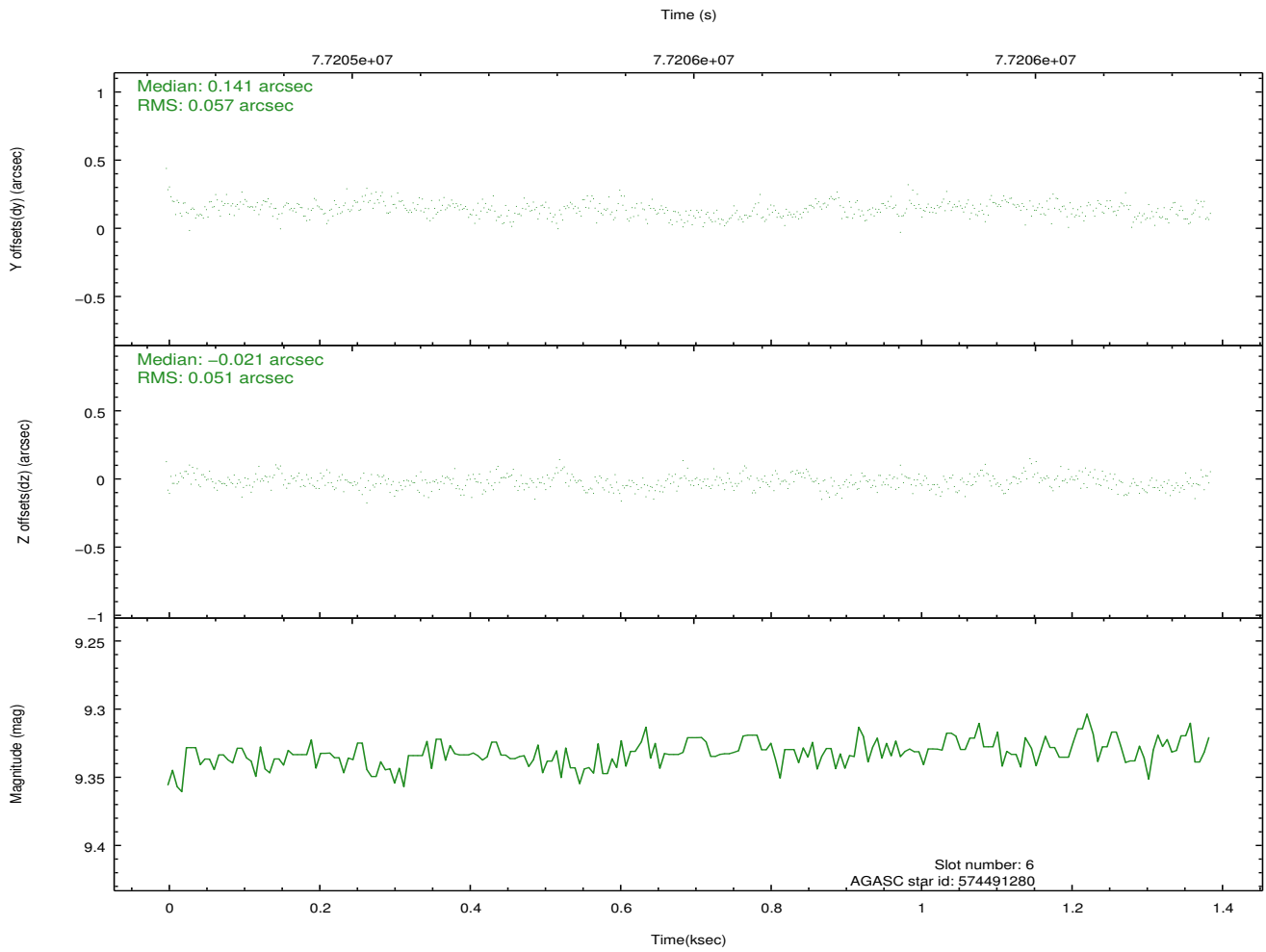
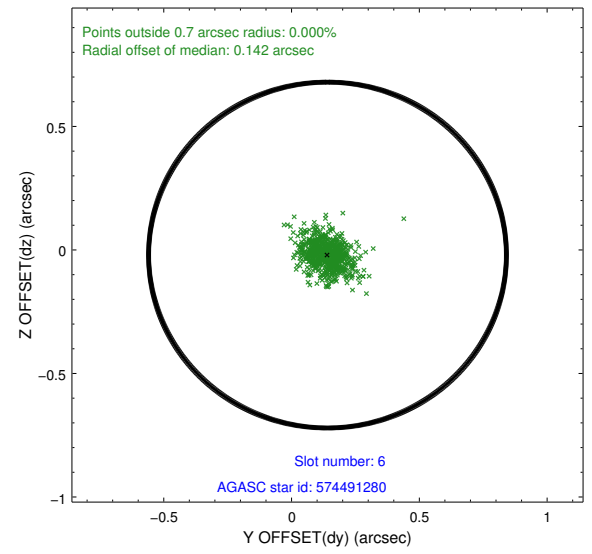
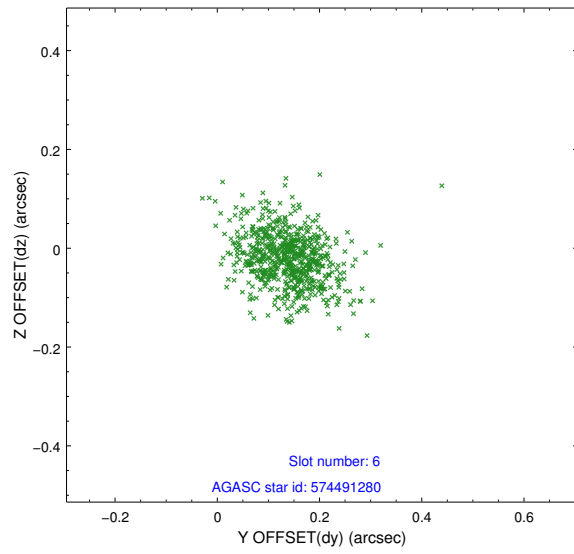
3.4.2 Slot 4



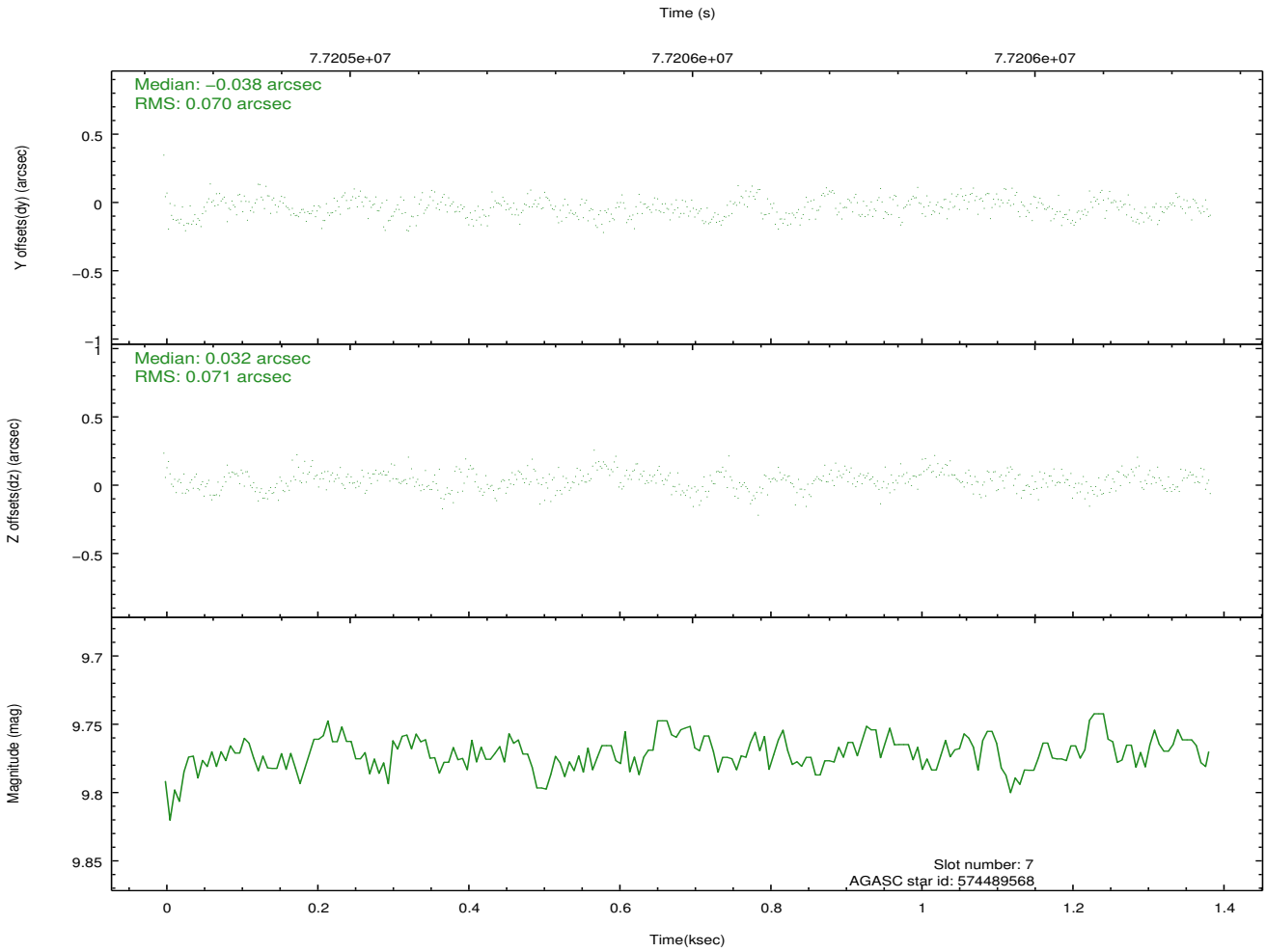
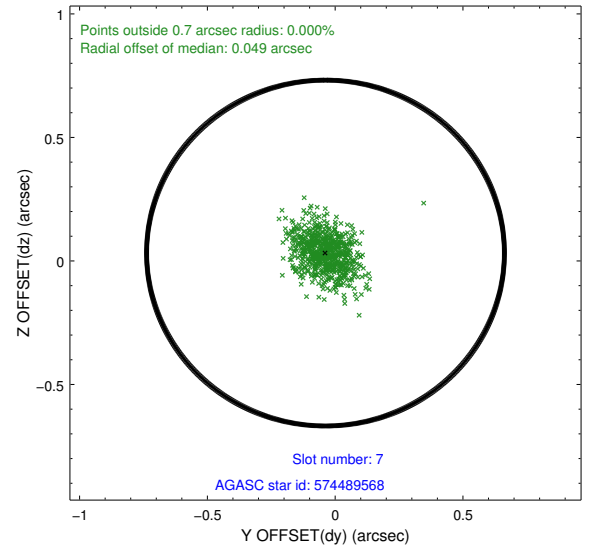
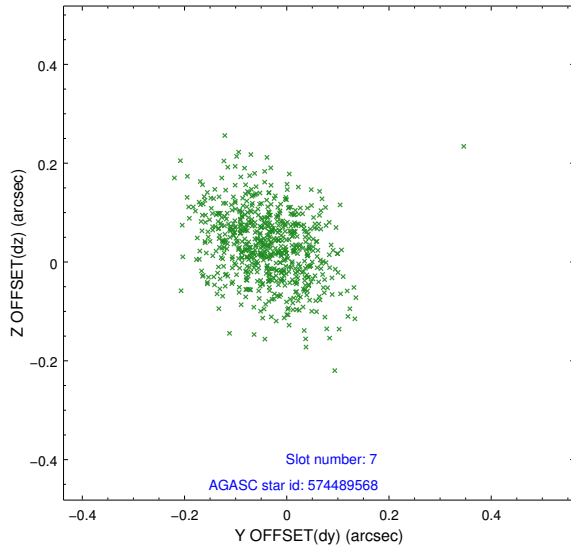
3.4.3 Slot 5



3.4.4 Slot 6

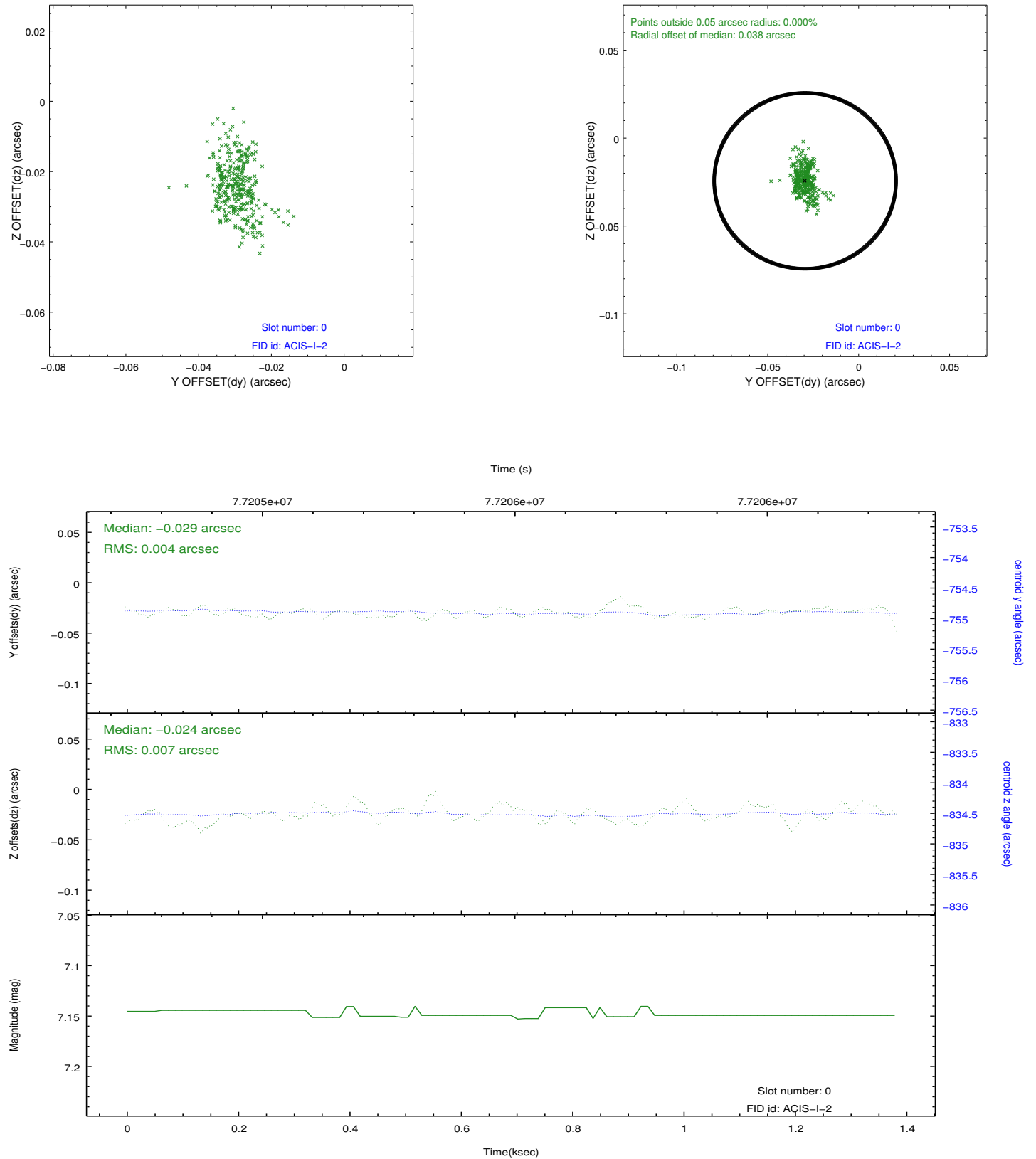


3.4.5 Slot 7

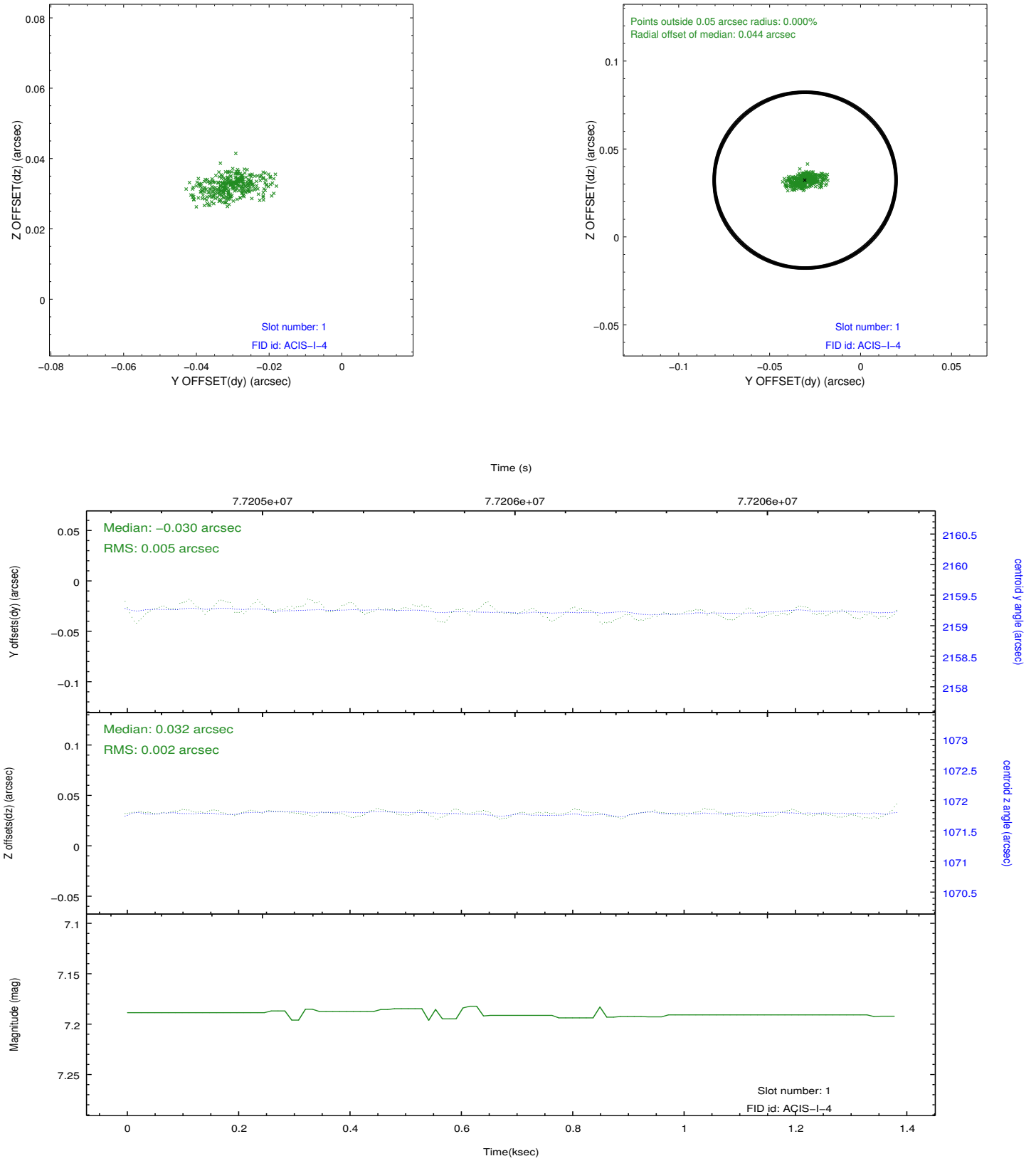


3.5 FID Slots

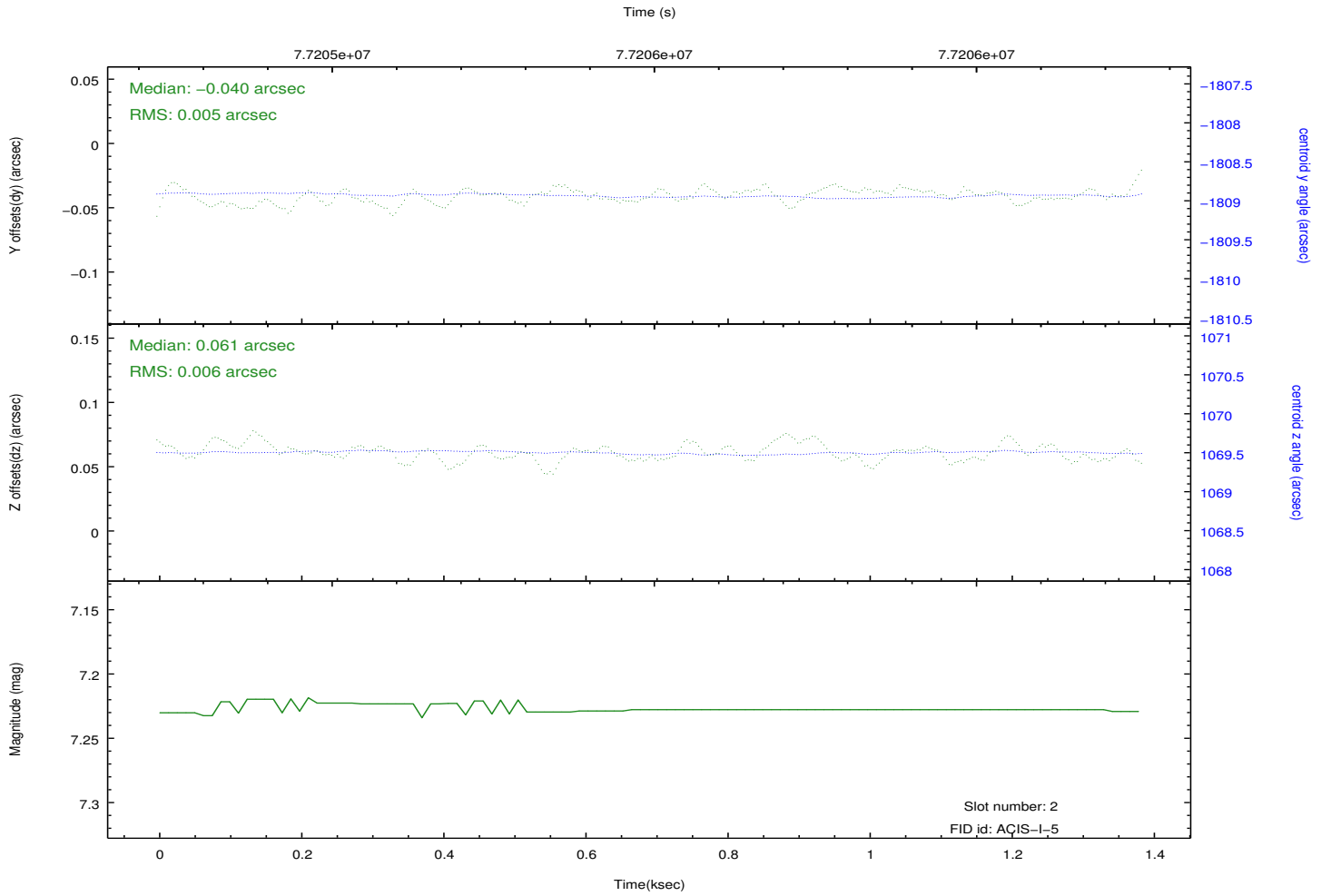
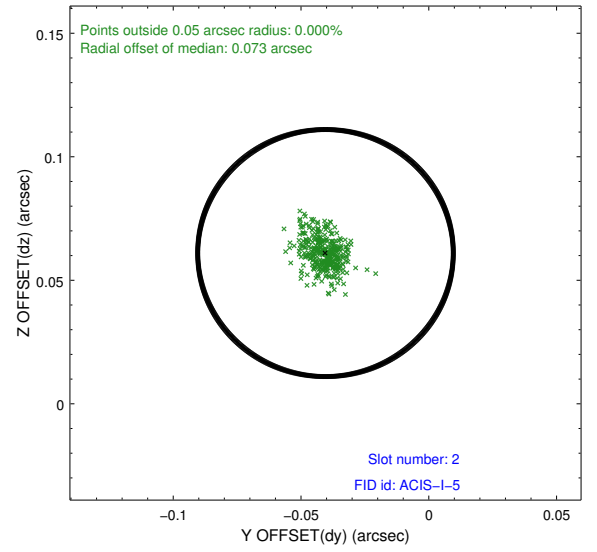
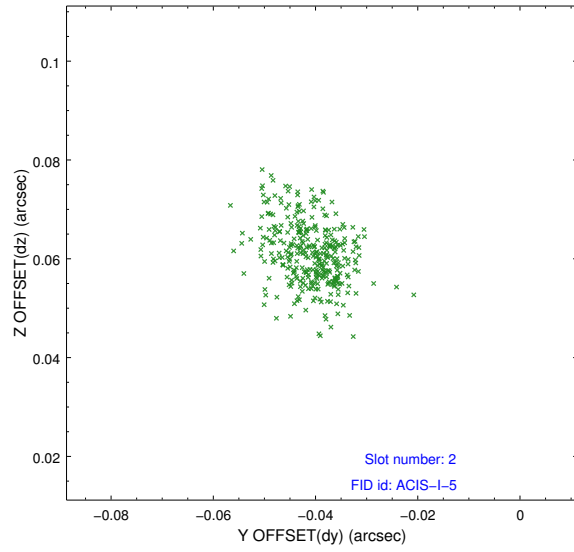
3.5.1 Slot 0



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)	2012.10.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.065

A.2 Comments