

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 2042 - L2 Version 001
Chandra X-Ray Center

L2 Processing Date : Jan 19 2007

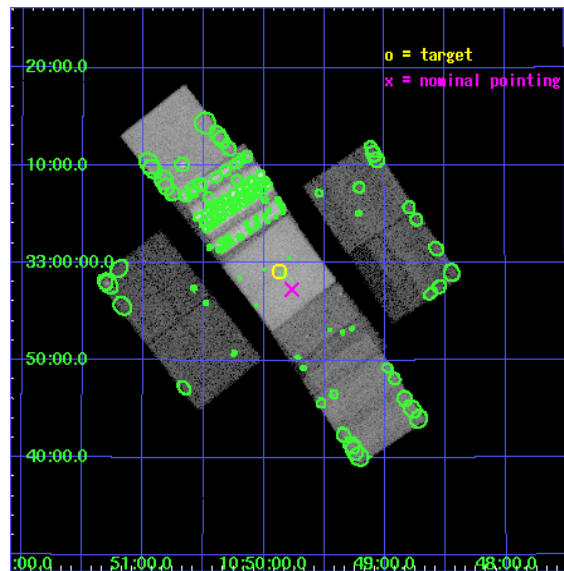
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1 Front

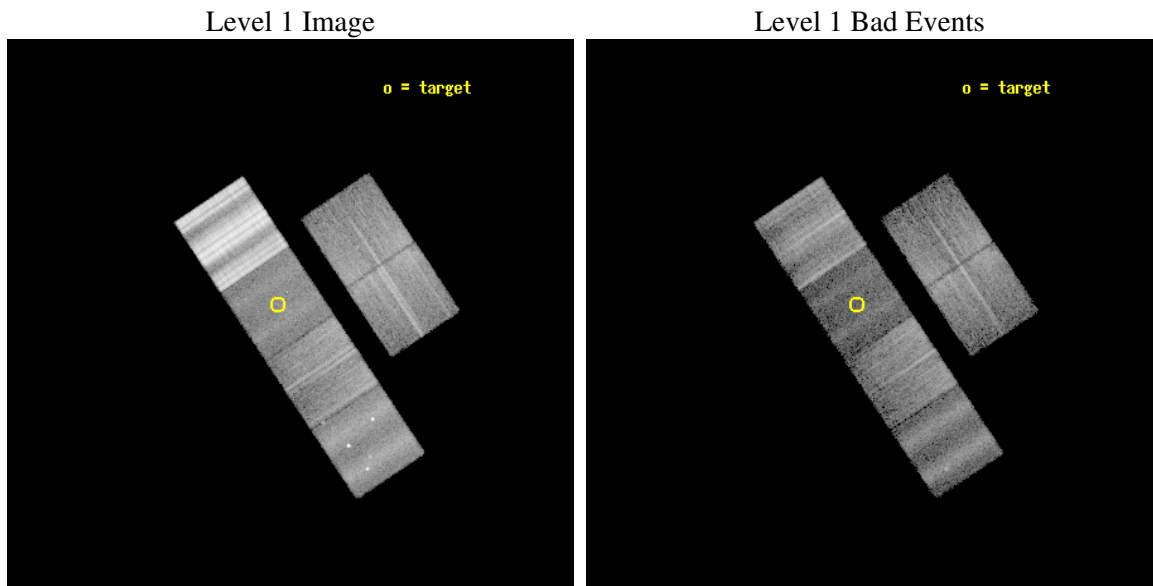
seq_num	600176
obs_id	2042
title	THE EVOLUTION OF GAS EJECTION FROM MERGING GALAXIES
observer	Dr. Andrew Read
object	ARP 270
dtcycle	0
cycle	P
ra_targ	162.46875
dec_targ	32.985
ra_nom	162.44210234851
dec_nom	32.954886907292
roll_nom	236.24484782622
revision	3
ontime	19734.400018379
livetime	19484.511162717
ontime2	18839.728673831
ontime3	18907.95329833
ontime5	19731.159058124
ontime6	18826.887155443
ontime7	19734.400018379
ontime8	18982.537181556
l2events	500572



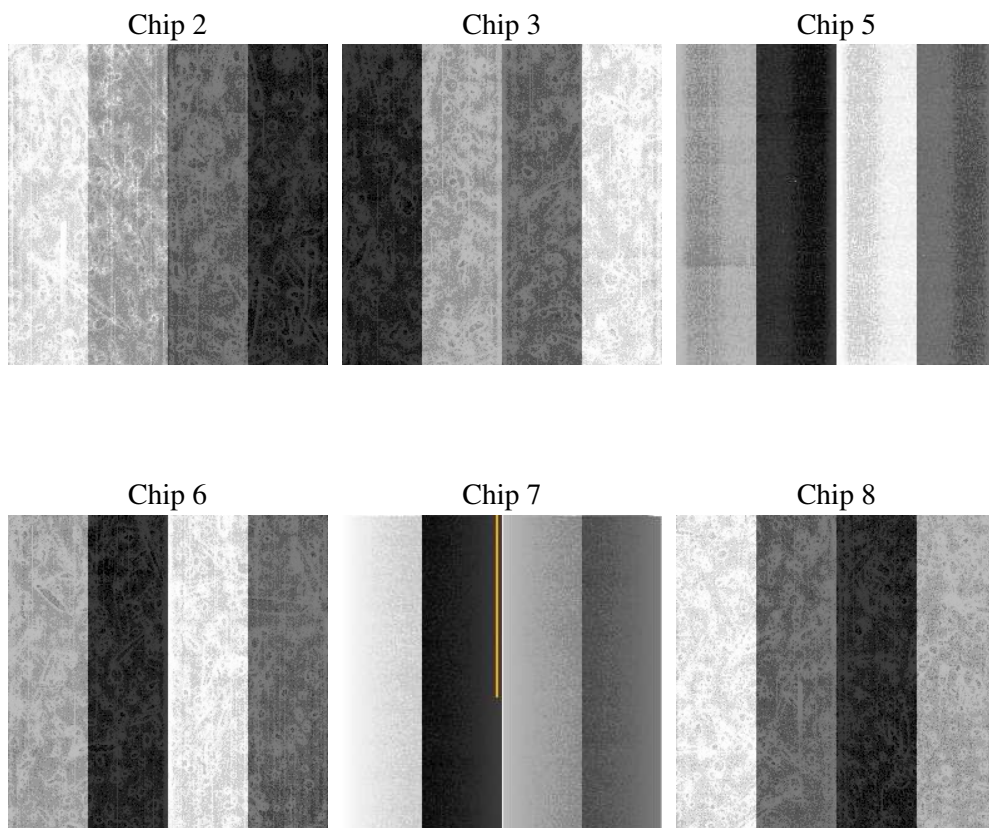
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1
ascdsver	7.6.10
caldbver	3.3.0
date	2007-01-18T21:18:44
revision	3

sched_exp_time	18500.000000
ontime	6083.2000056654
ontime2	5191.7696014643
ontime3	5263.2352061272
ontime5	6083.2000056654
ontime6	5175.6871427298
ontime7	6083.2000056654
ontime8	5334.5781390965
l1events	836875

2.1.4 Events

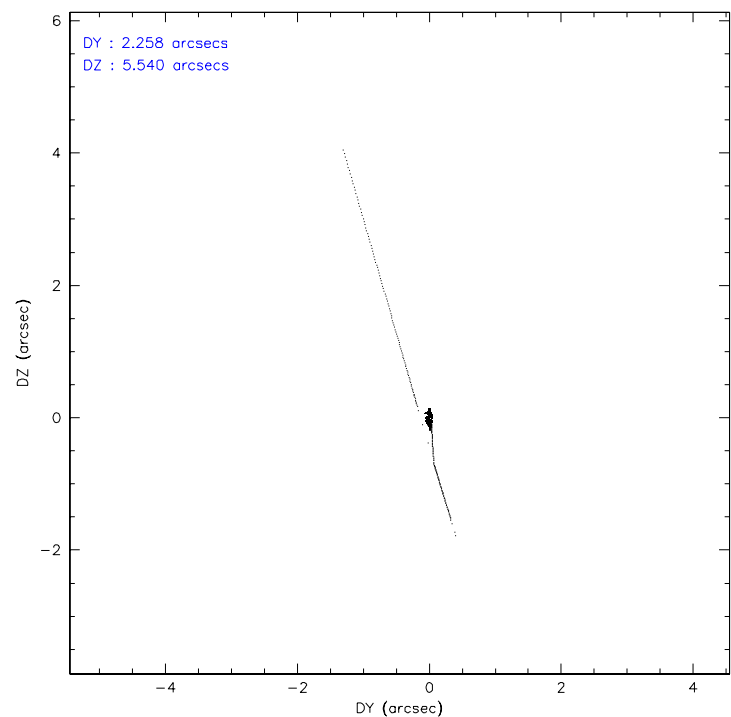
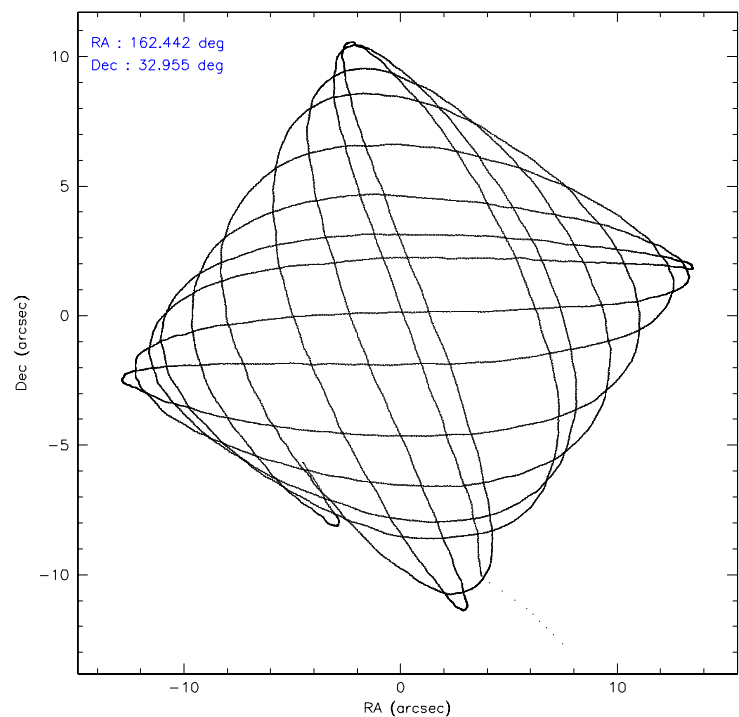
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	100640	92257	102966	98229	72428	370355
rejected events	78056	74099	57489	77991	38461	100094
rejected %	77%	80%	55%	79%	53%	27%

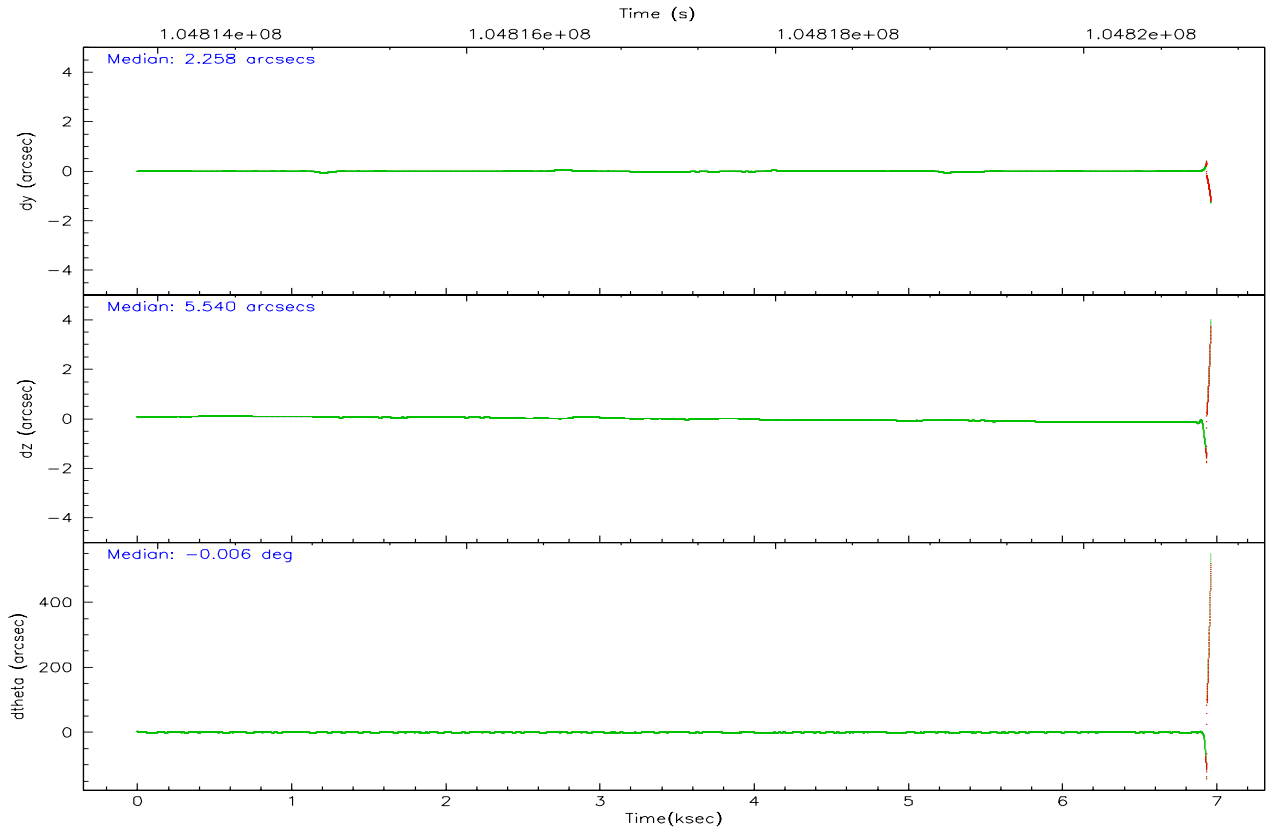
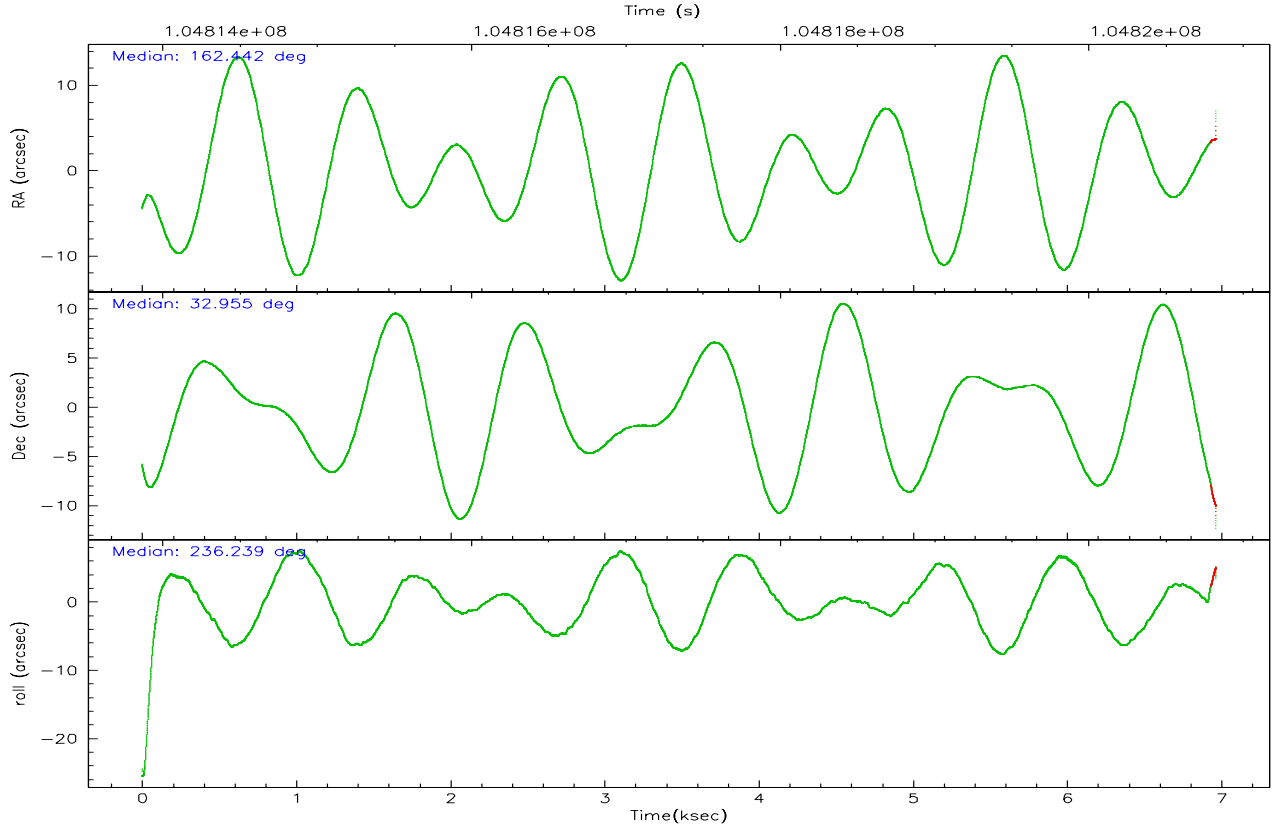
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	9684	5451	8052	8022	4061	91569
	9%	5%	7%	8%	5%	24%
grade 1 events	94	40	399	80	225	857
	0%	0%	0%	0%	0%	0%
grade 2 events	6423	6213	14090	6779	9189	29551
	6%	6%	13%	6%	12%	7%
grade 3 events	462	466	4012	573	3486	56195
	0%	0%	3%	0%	4%	15%
grade 4 events	1446	723	3905	625	3491	49393
	1%	0%	3%	0%	4%	13%
grade 5 events	1365	1425	6525	1484	6293	4786
	1%	1%	6%	1%	8%	1%
grade 6 events	4587	5342	16105	4271	14218	45437
	4%	5%	15%	4%	19%	12%
grade 7 events	76579	72597	49878	76395	31465	92567
	76%	78%	48%	77%	43%	24%

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	162.443941	162.4421023485135	Subarray requested	NONE	NONE
Pointing Dec	32.982126	32.9548869072925	Alternating exposures requested	N	N
Pointing Roll	236.087248	236.2448478262192	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1425803651734			
SIM translation stage offset (mm)	0	0.01005778216563158			
Observation start time	104814663.184000	104813397.40432			
Observation start date	2001-04-28T03:09:59	2001-04-28T02:49:57			
Observation end time	104833163.184000	104820853.25461			
Observation end date	2001-04-28T08:18:19	2001-04-28T04:54:13			
Read mode	TIMED	TIMED			

2.3 Aspect



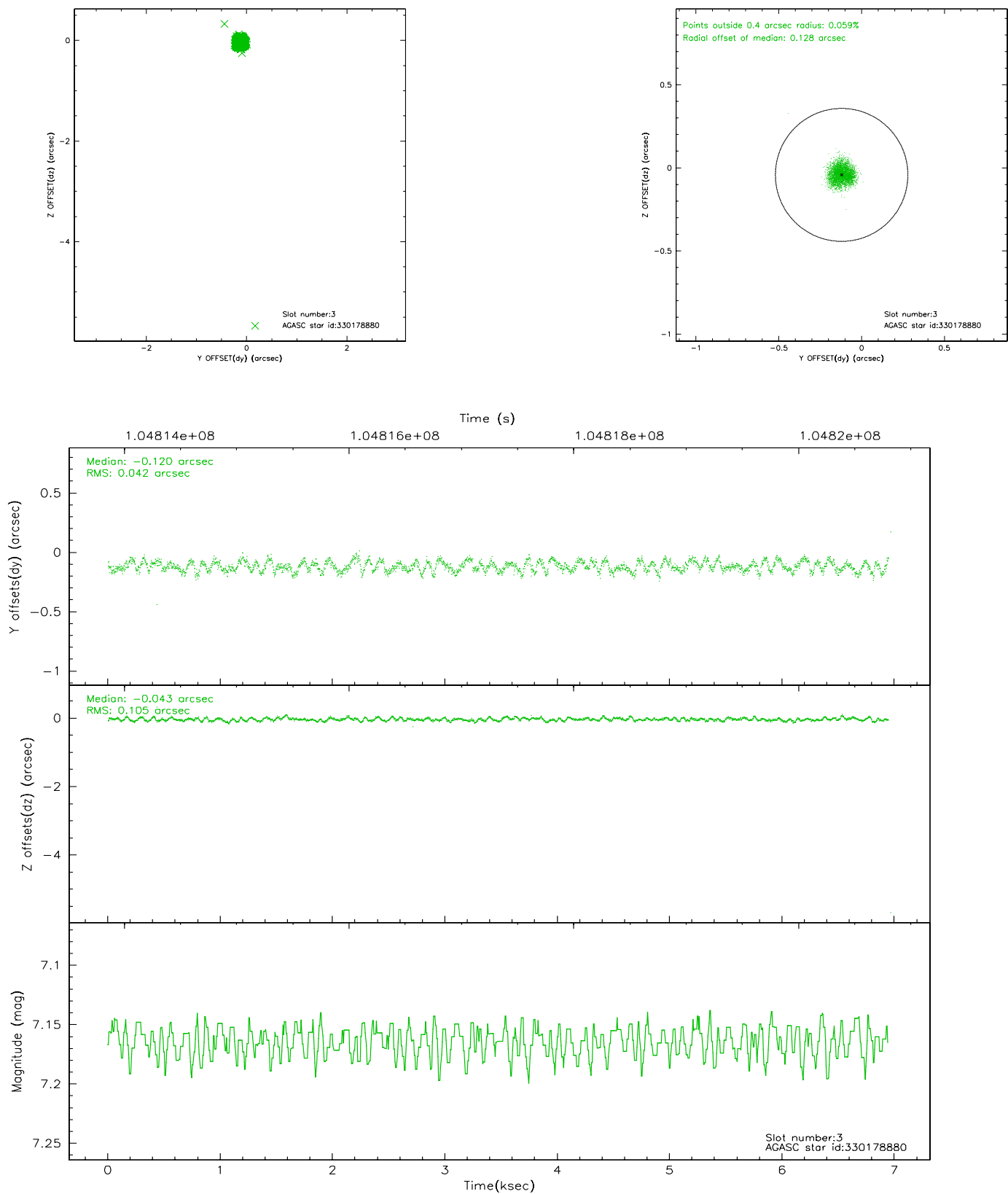


Slot Statistics

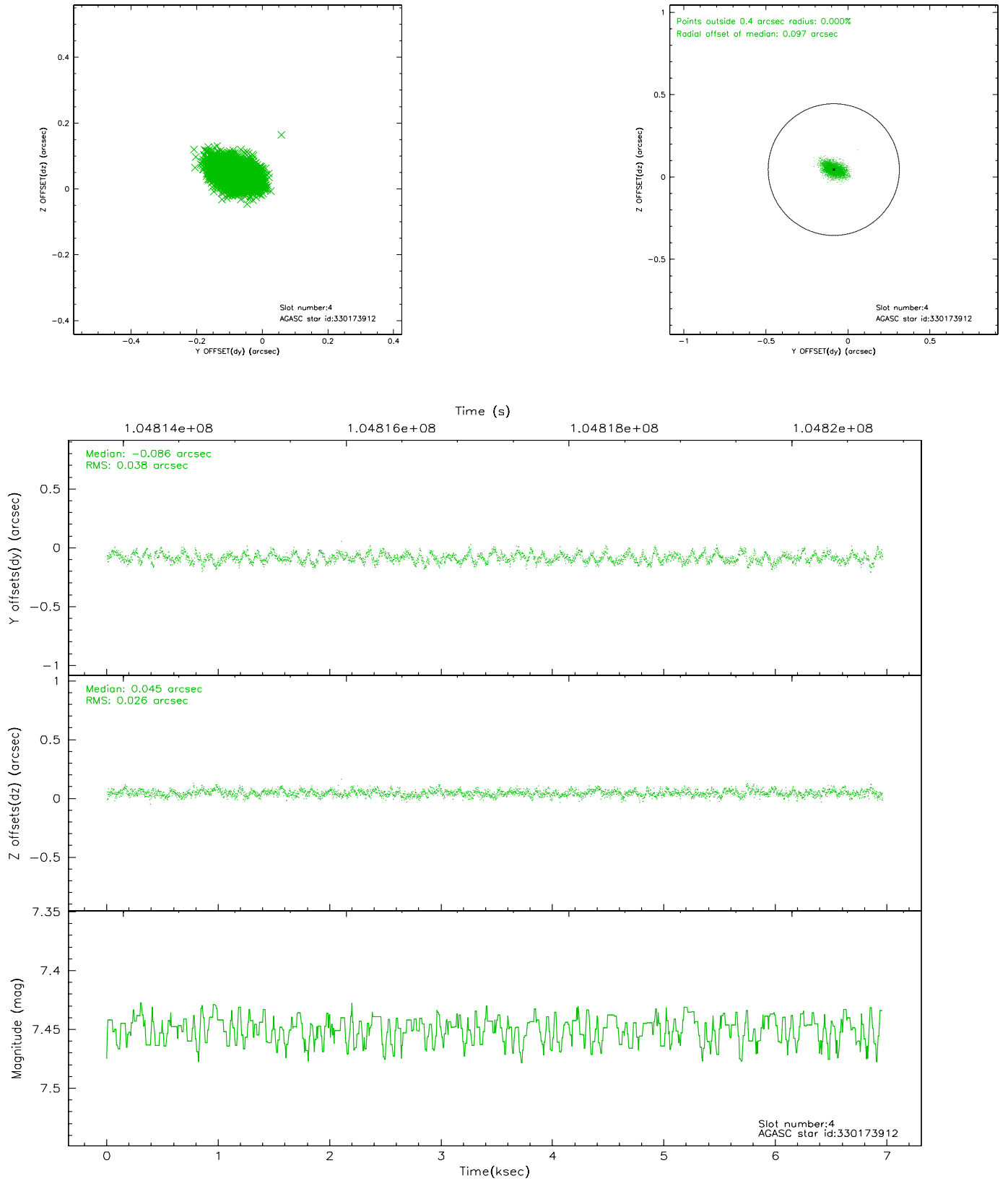
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	1689	-0.024	0.025	0.006	0.011	0.000000	0.000000	-754.85	-1726.60
1	FID	ACIS-S-4	7.20	1688	-0.075	0.005	0.005	0.008	0.000000	0.000000	2157.94	181.07
2	FID	ACIS-S-5	7.24	1688	0.067	-0.021	0.006	0.011	0.000000	0.000000	-1806.58	175.57
3	GUIDE	330178880	7.16	3389	-0.120	-0.043	0.064	0.095	163.017321	32.628628	82.71	2149.92
4	GUIDE	330173912	7.45	3396	-0.086	0.045	0.048	0.081	163.171265	32.988753	-1250.90	1805.57
5	GUIDE	330178712	8.22	3390	0.117	-0.070	0.046	0.076	162.236513	32.407638	2068.01	630.94
6	GUIDE	330176384	8.85	3392	-0.035	0.162	0.069	0.115	163.009586	33.043924	-1139.51	1290.01
7	GUIDE	330174856	8.87	3388	0.125	-0.098	0.063	0.104	162.081845	32.889185	887.47	-722.55

2.4 Star Slots

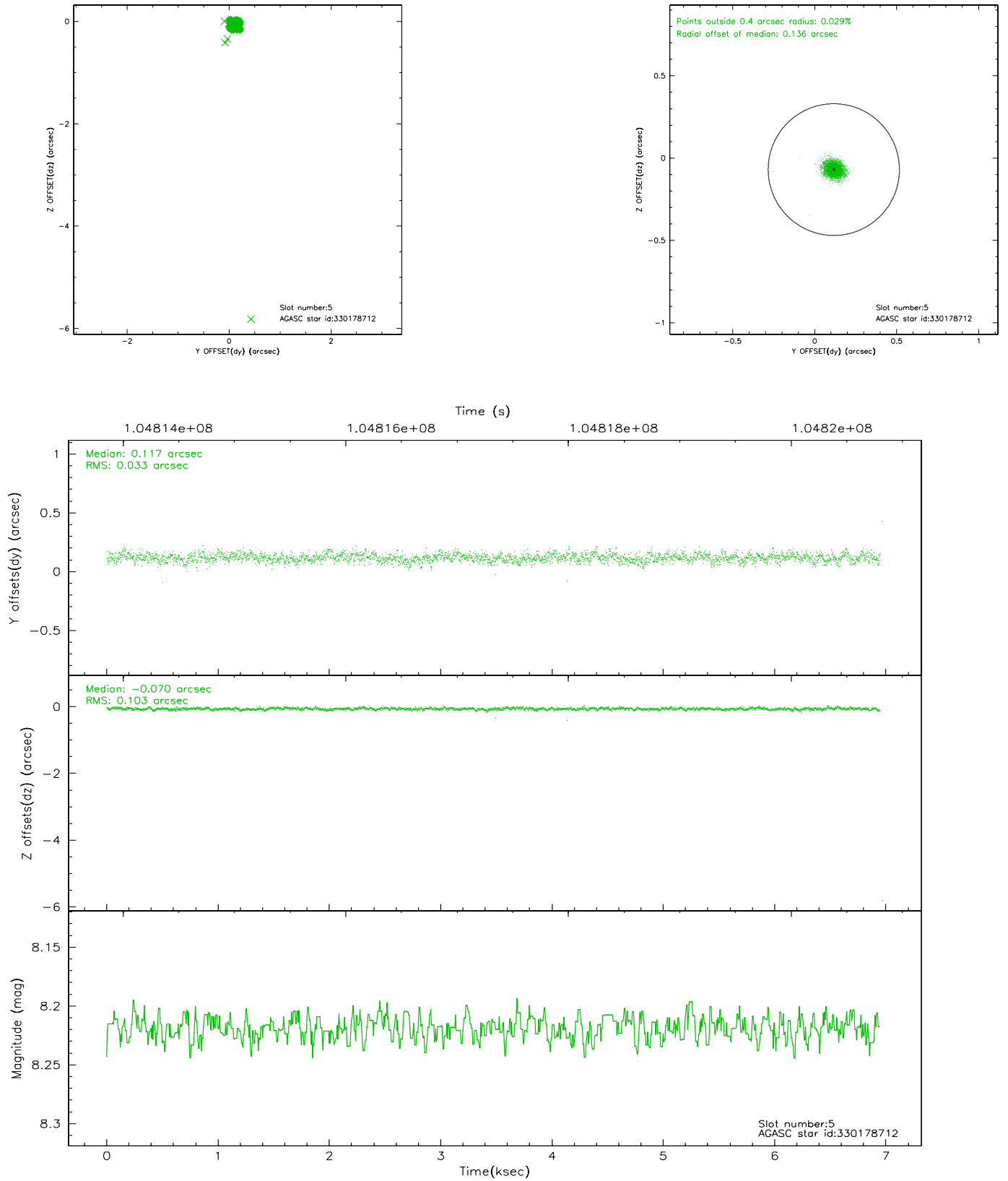
2.4.1 Slot 3



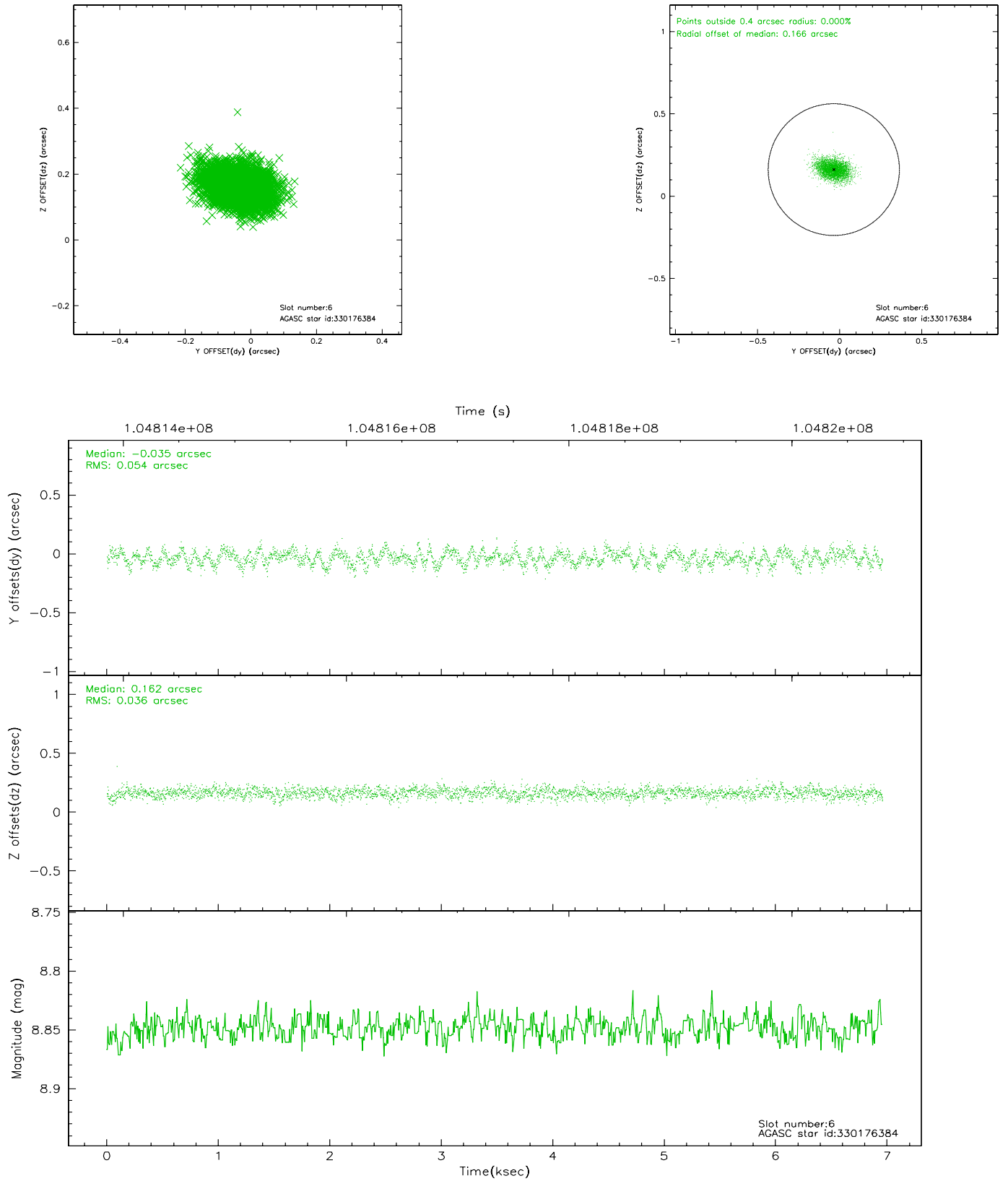
2.4.2 Slot 4



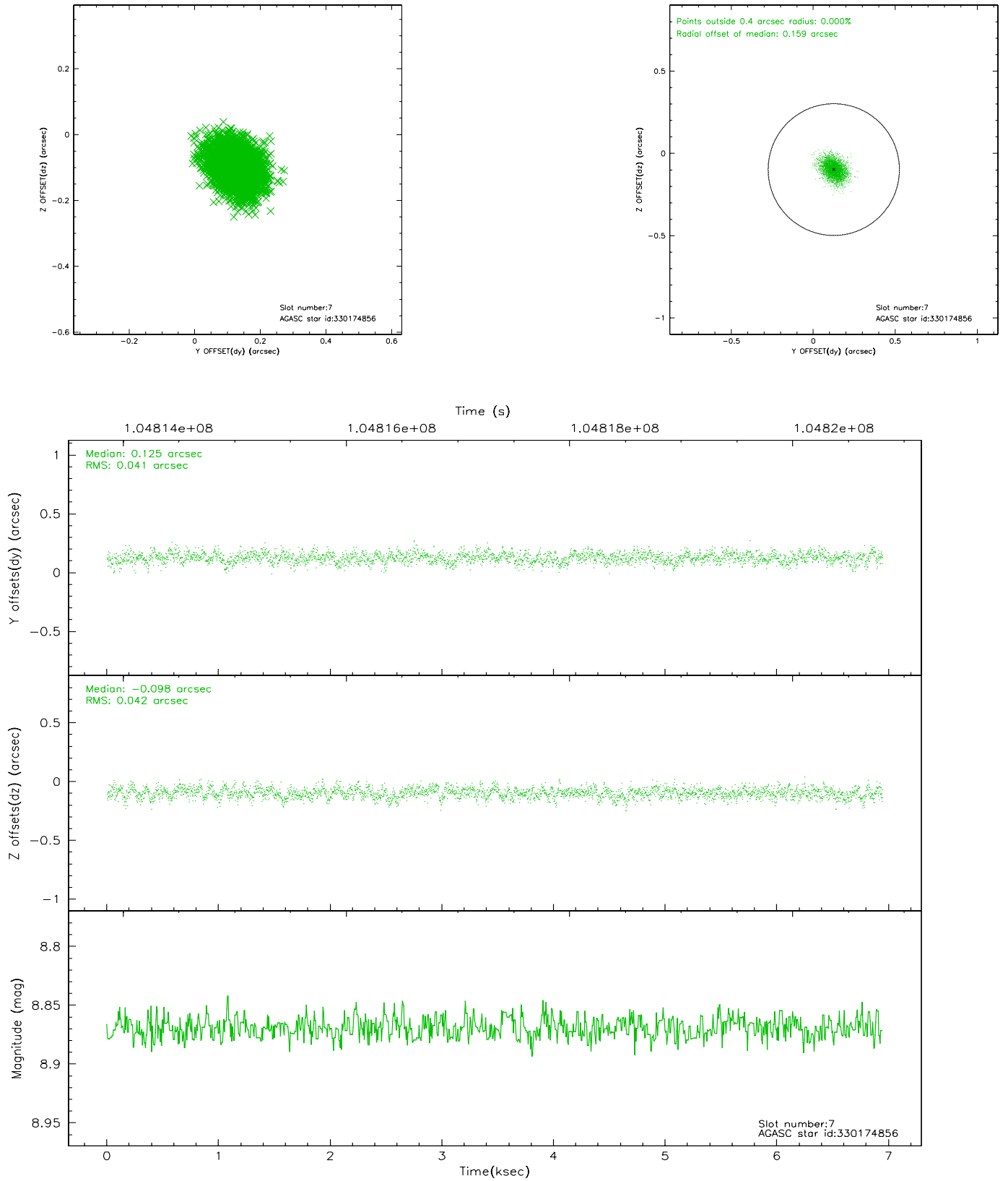
2.4.3 Slot 5



2.4.4 Slot 6

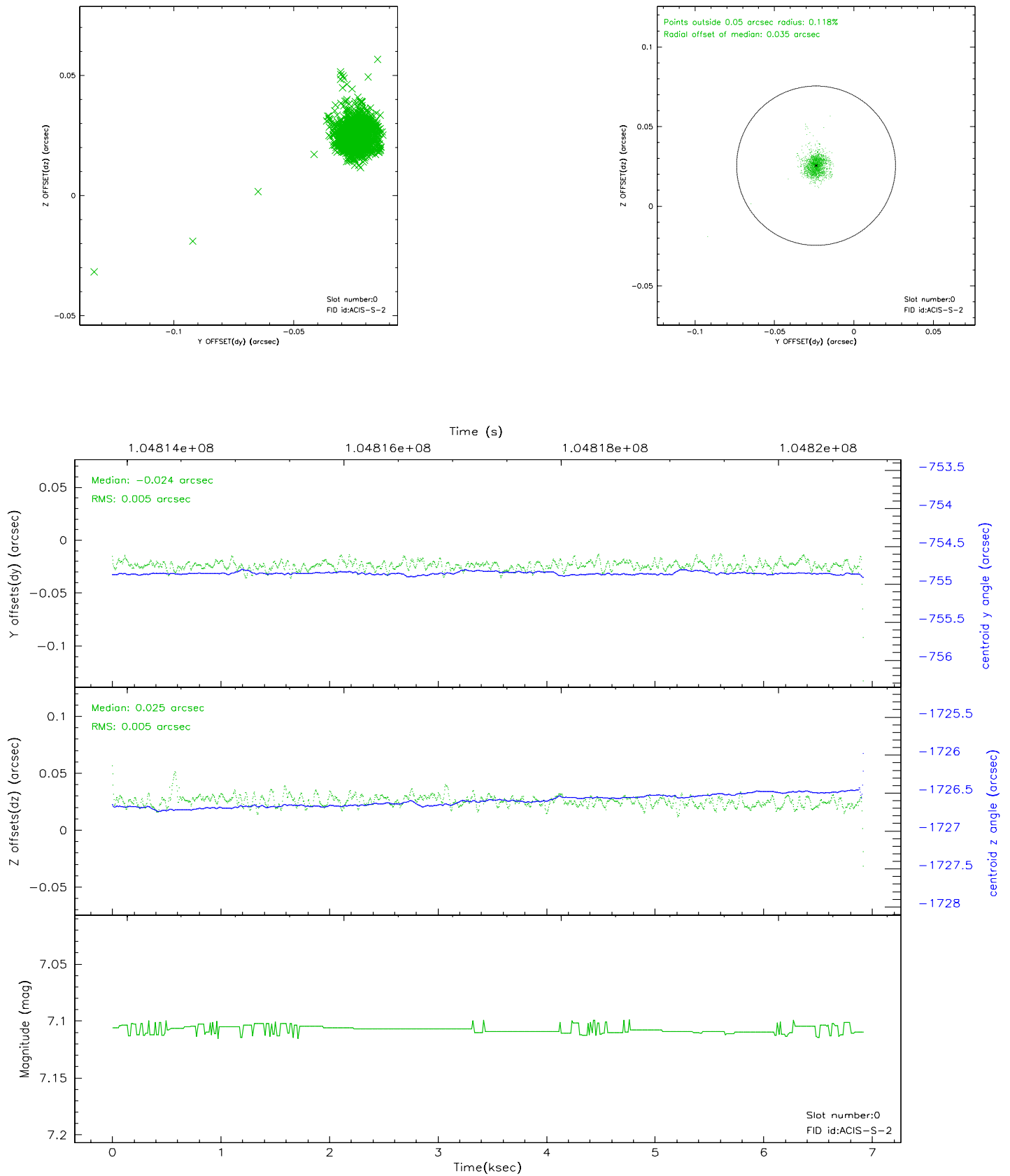


2.4.5 Slot 7

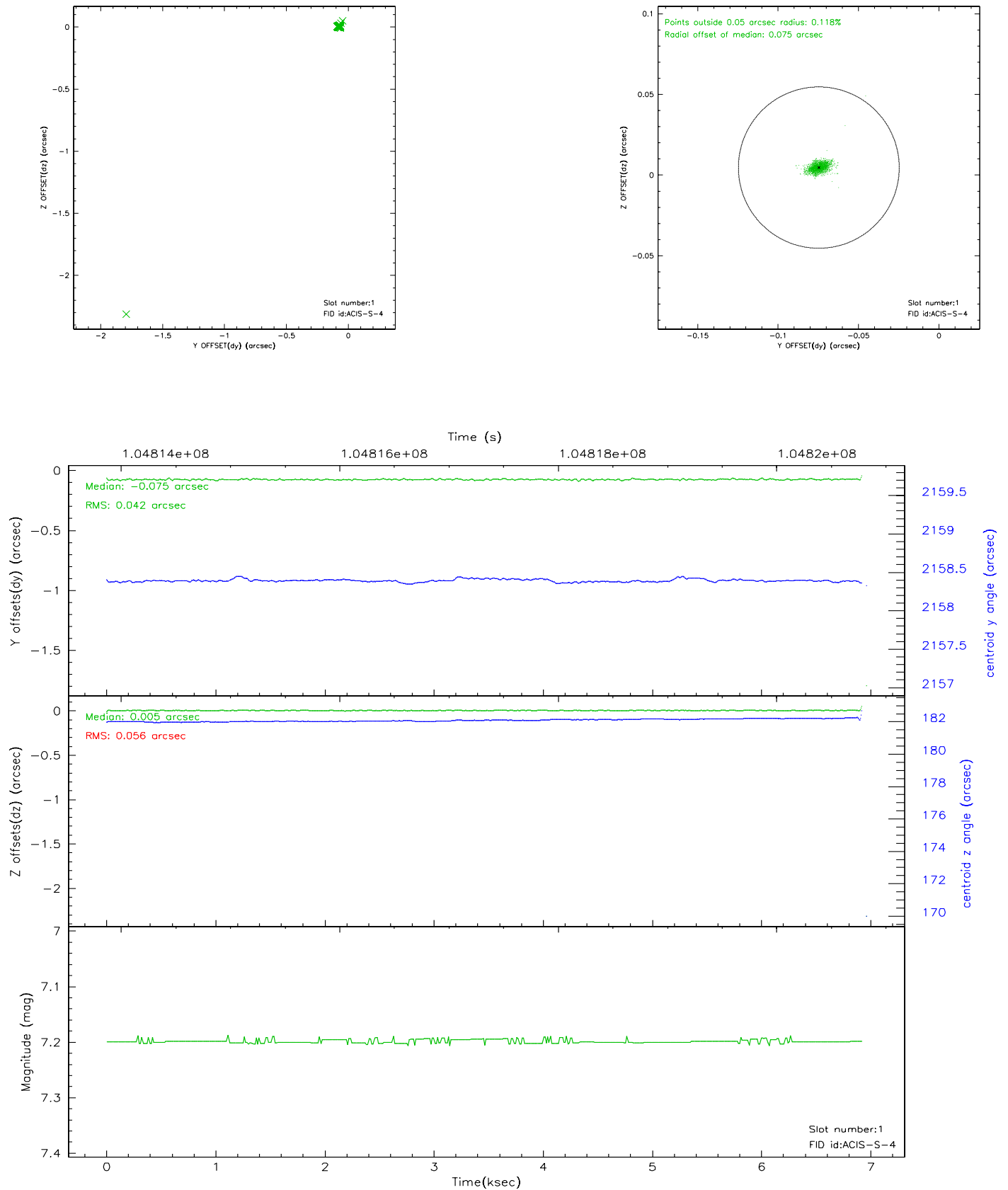


2.5 FID Slots

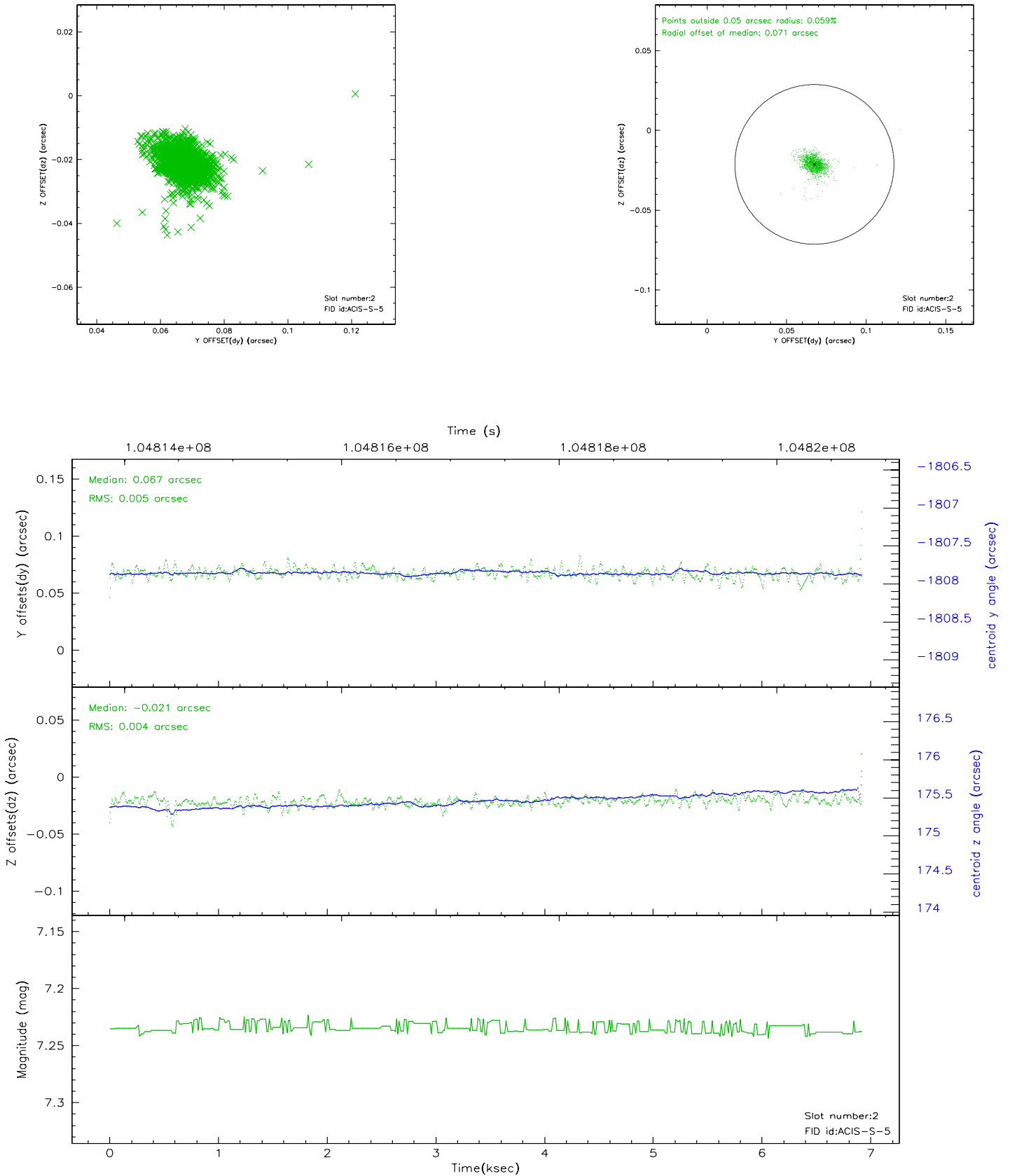
2.5.1 Slot 0



2.5.2 Slot 1



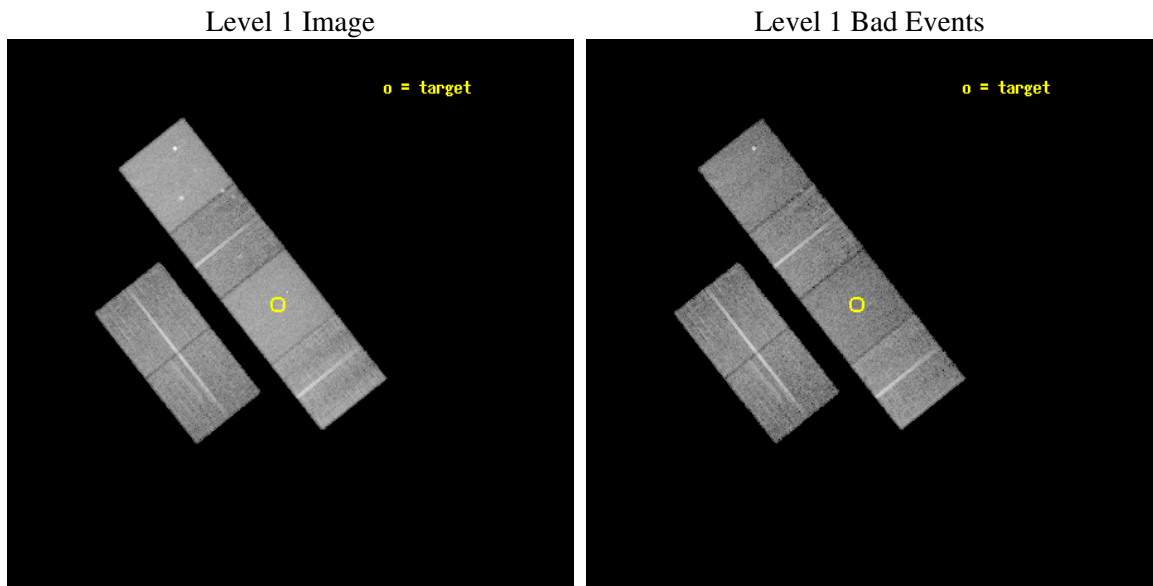
2.5.3 Slot 2



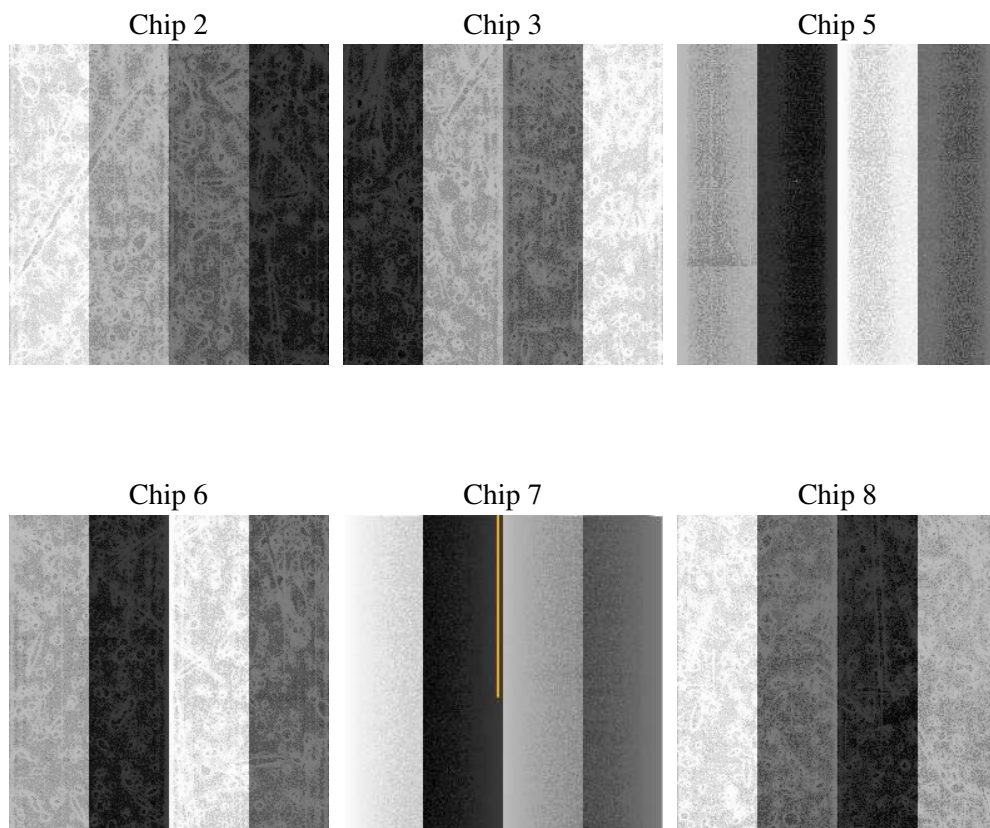
3 OBI

3.1 OBI

3.1.1 Images



3.1.2 Bias



3.1.3 Parameters

obi_num	2
ascdsver	7.6.10
caldsver	3.3.0
date	2007-01-19T20:21:05
revision	3

sched_exp_time	13891.000000
ontime	13651.200012714
ontime2	13647.959072366
ontime3	13644.718092203
ontime5	13647.959052458
ontime6	13651.200012714
ontime7	13651.200012714
ontime8	13647.95904246
l1events	743644

3.1.4 Events

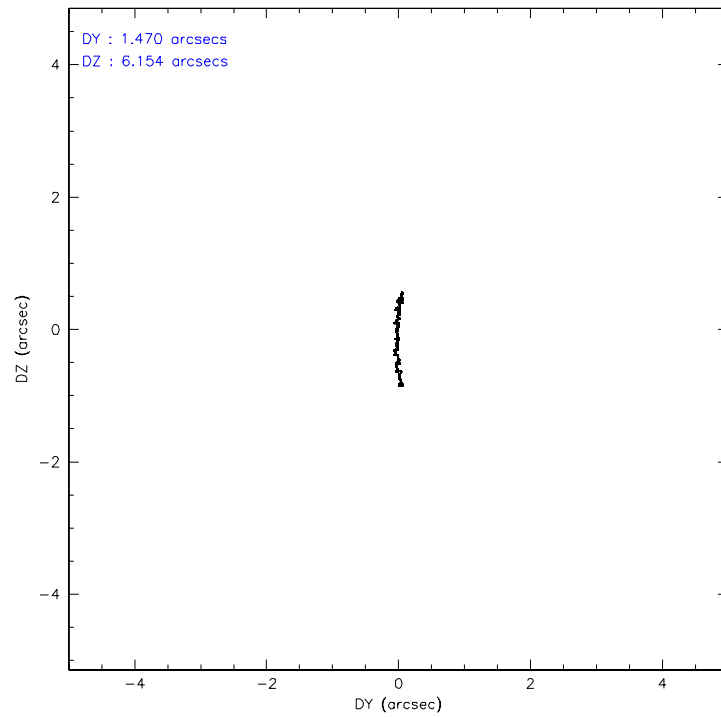
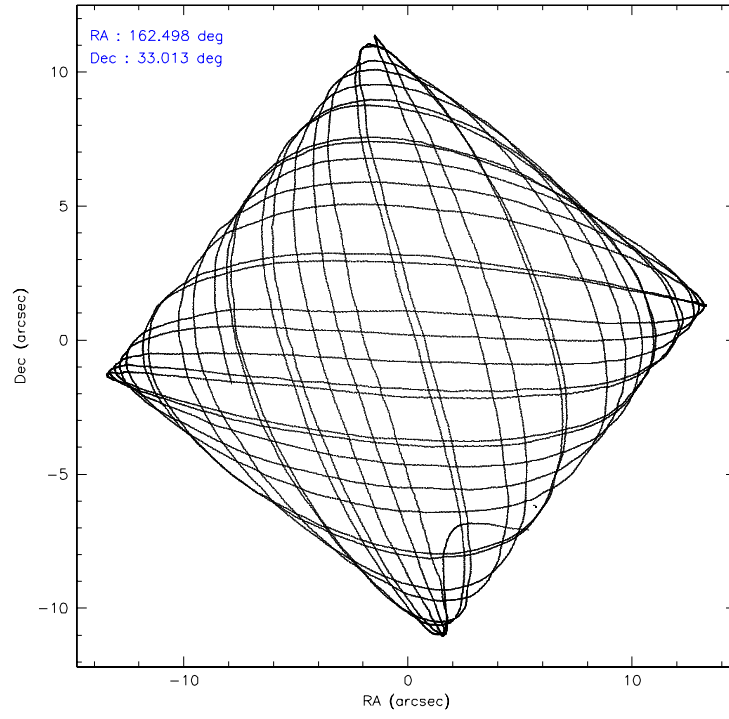
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	103984	96514	158204	100525	147839	136578
rejected events	89439	82643	71266	84207	67923	98639
rejected %	86%	85%	45%	83%	45%	72%

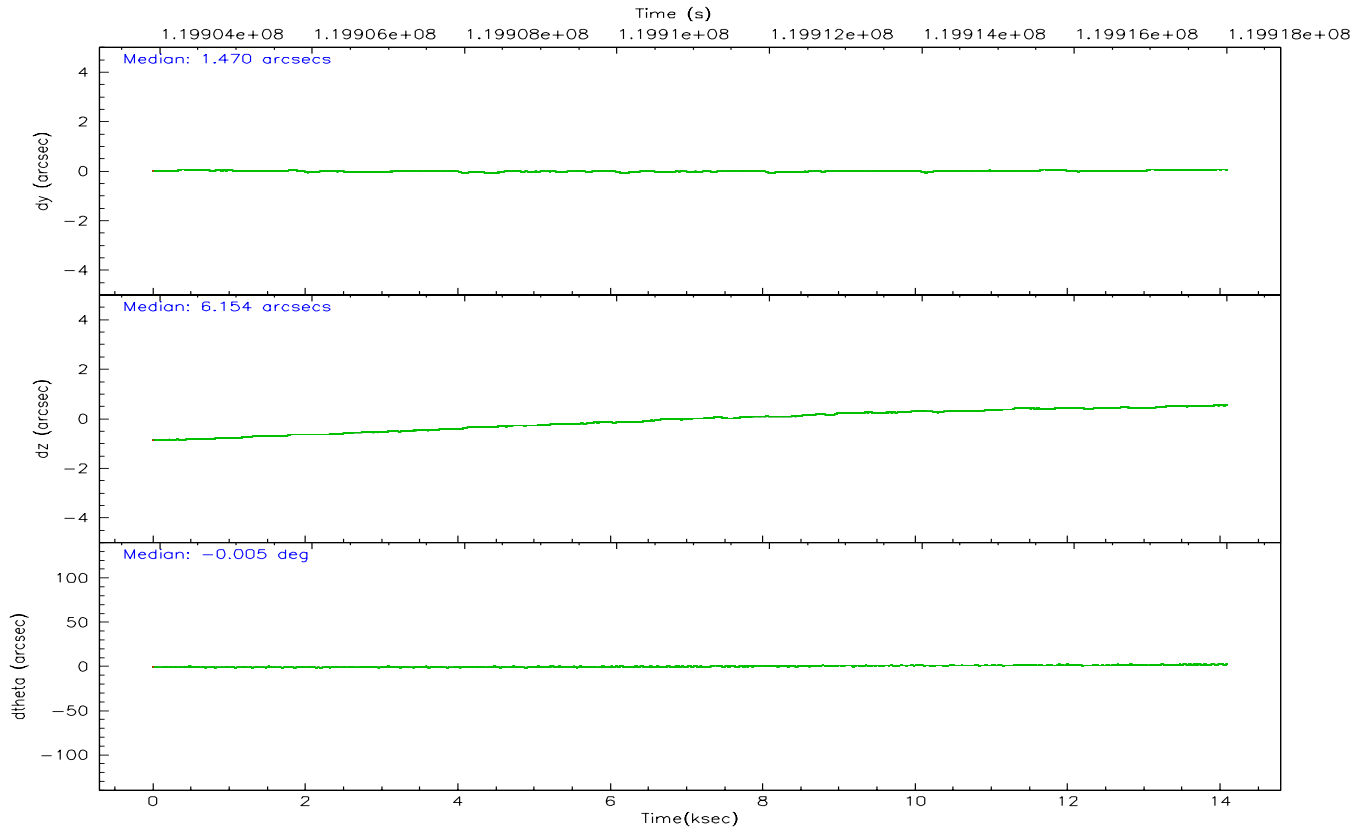
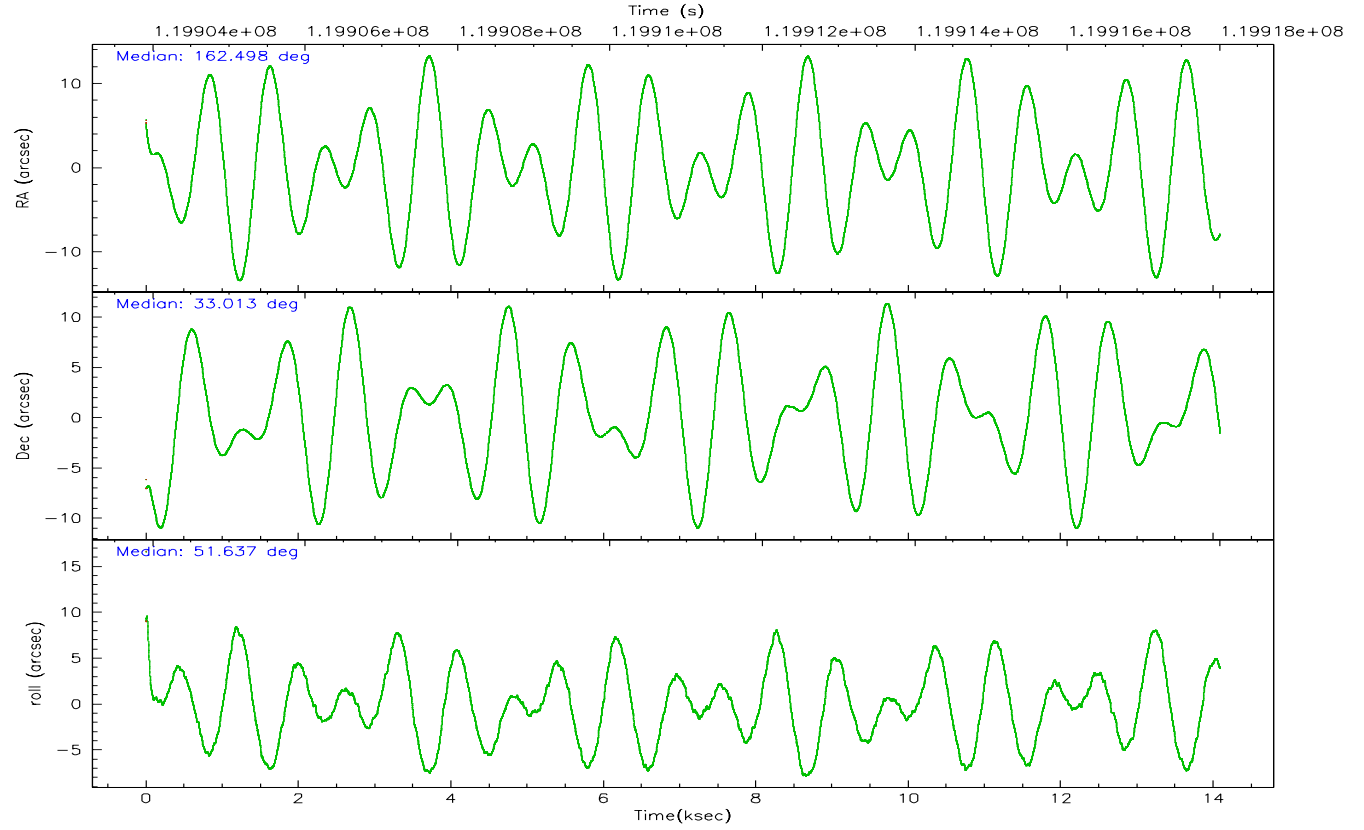
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	7658	7201	10397	8854	8621	14554
	7%	7%	6%	8%	5%	10%
grade 1 events	62	66	221	66	119	104
	0%	0%	0%	0%	0%	0%
grade 2 events	2830	2551	25581	2875	15256	6942
	2%	2%	16%	2%	10%	5%
grade 3 events	1035	1100	4998	1171	6707	4536
	0%	1%	3%	1%	4%	3%
grade 4 events	1086	1136	4352	1156	6698	4083
	1%	1%	2%	1%	4%	2%
grade 5 events	3042	3373	10514	3756	11196	4678
	2%	3%	6%	3%	7%	3%
grade 6 events	1941	1889	41631	2266	42674	7829
	1%	1%	26%	2%	28%	5%
grade 7 events	86330	79198	60510	80381	56568	93852
	83%	82%	38%	79%	38%	68%

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	162.493756	162.4981161416714	Subarray requested	NONE	NONE
Pointing Dec	32.986199	33.01321194998145	Alternating exposures requested	N	N
Pointing Roll	51.488692	51.64294723531157	Primary exposure time	0.000000	3.2
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	119904114.184000	119903355.74655			
Observation start date	2001-10-19T18:40:50	2001-10-19T18:29:15			
Observation end time	119918005.184000	119918445.79715			
Observation end date	2001-10-19T22:32:21	2001-10-19T22:40:45			
Read mode	TIMED	TIMED			

3.3 Aspect



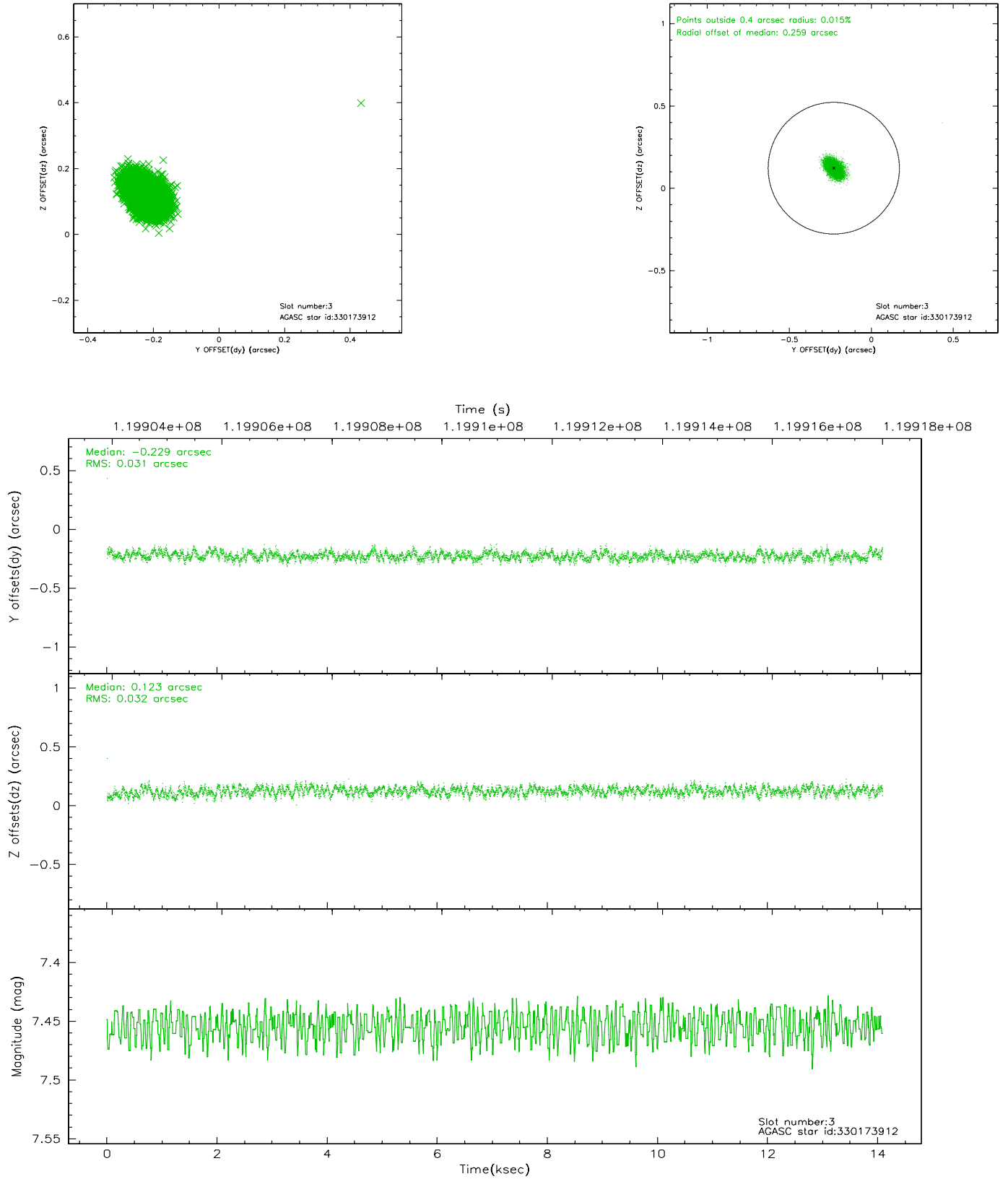


Slot Statistics

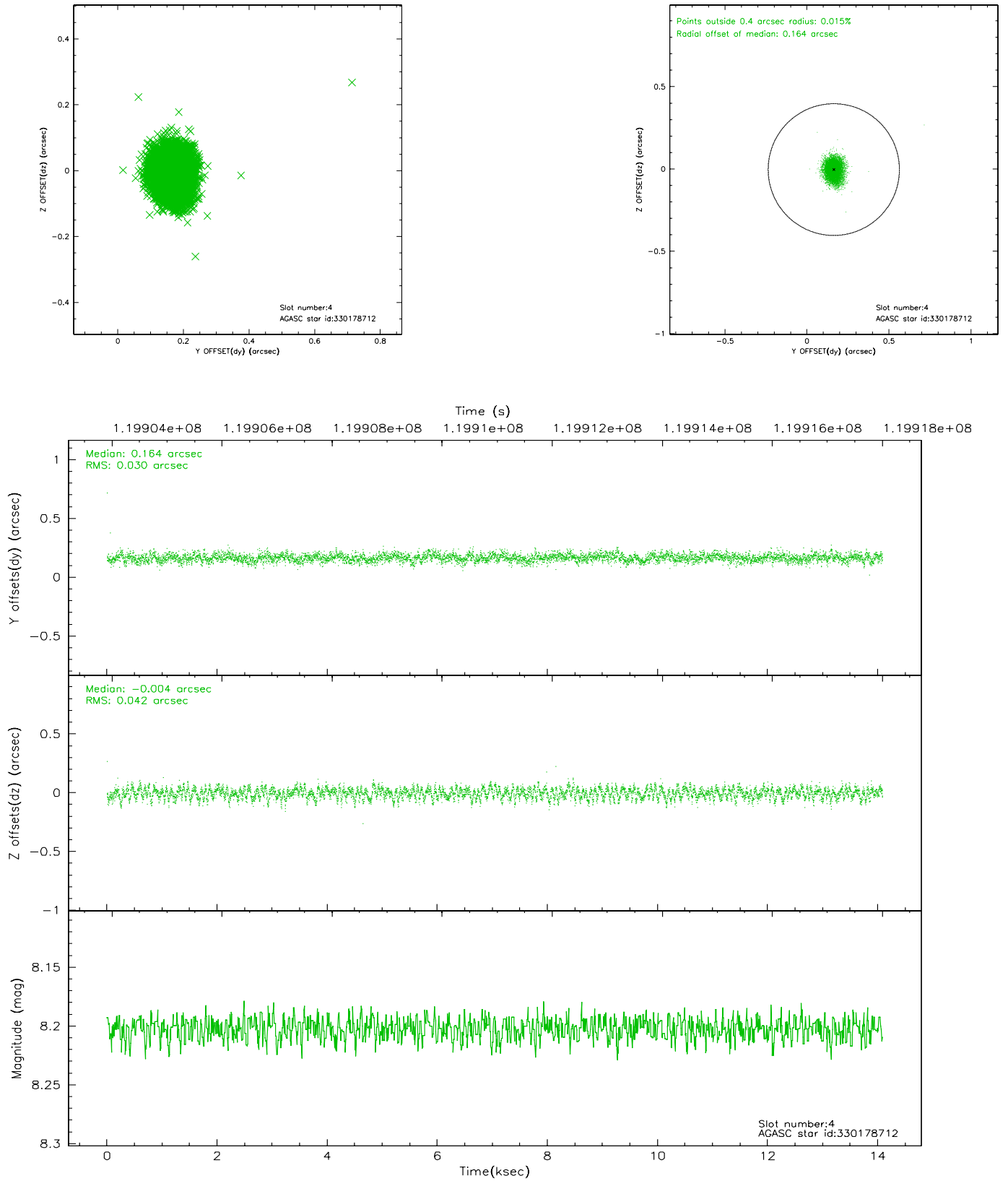
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	1689	-0.024	0.025	0.006	0.011	0.000000	0.000000	-754.85	-1726.60
1	FID	ACIS-S-4	7.20	1688	-0.075	0.005	0.005	0.008	0.000000	0.000000	2157.94	181.07
2	FID	ACIS-S-5	7.24	1688	0.067	-0.021	0.006	0.011	0.000000	0.000000	-1806.58	175.57
3	GUIDE	330178880	7.16	3389	-0.120	-0.043	0.064	0.095	163.017321	32.628628	82.71	2149.92
4	GUIDE	330173912	7.45	3396	-0.086	0.045	0.048	0.081	163.171265	32.988753	-1250.90	1805.57
5	GUIDE	330178712	8.22	3390	0.117	-0.070	0.046	0.076	162.236513	32.407638	2068.01	630.94
6	GUIDE	330176384	8.85	3392	-0.035	0.162	0.069	0.115	163.009586	33.043924	-1139.51	1290.01
7	GUIDE	330174856	8.87	3388	0.125	-0.098	0.063	0.104	162.081845	32.889185	887.47	-722.55

3.4 Star Slots

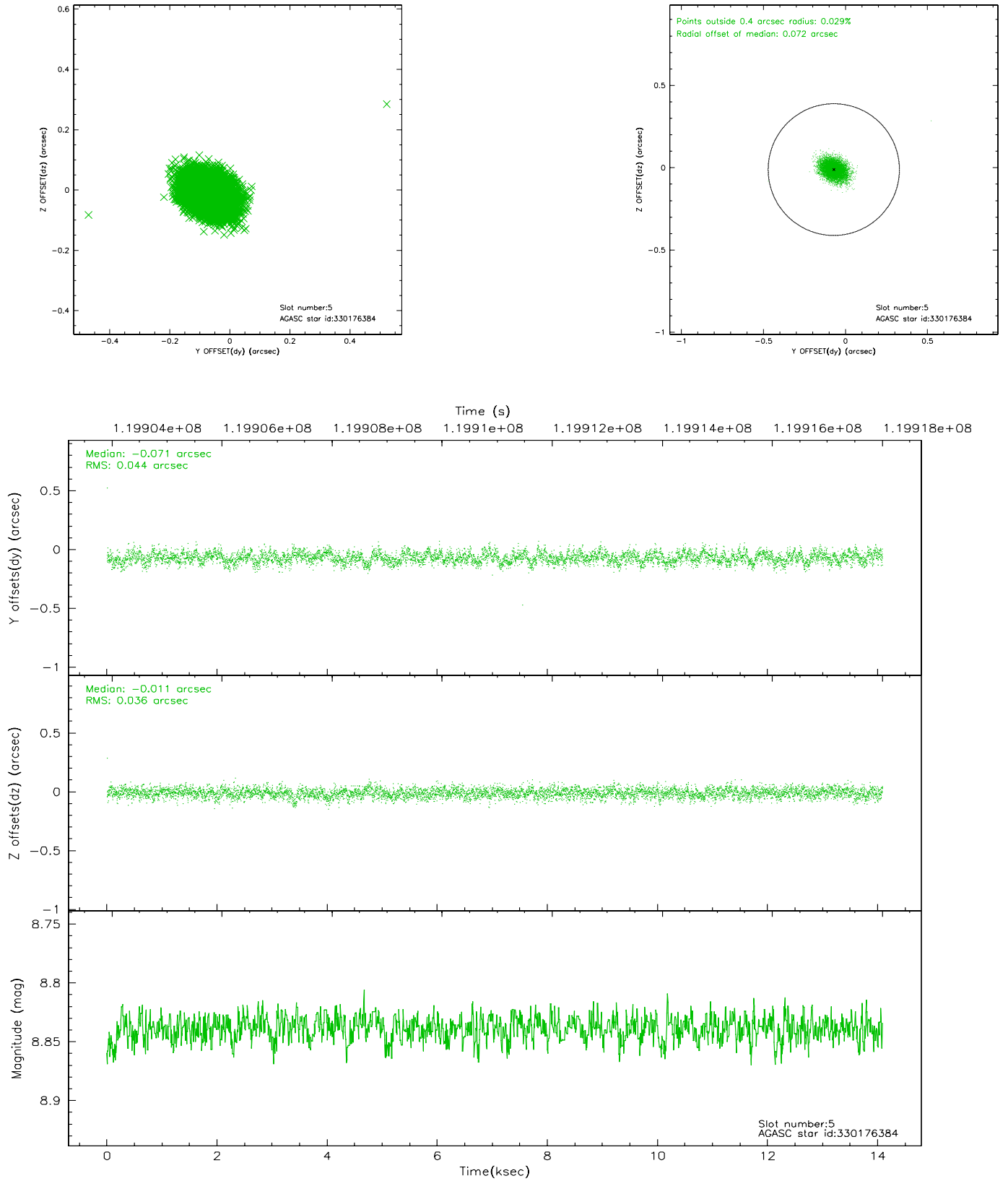
3.4.1 Slot 3



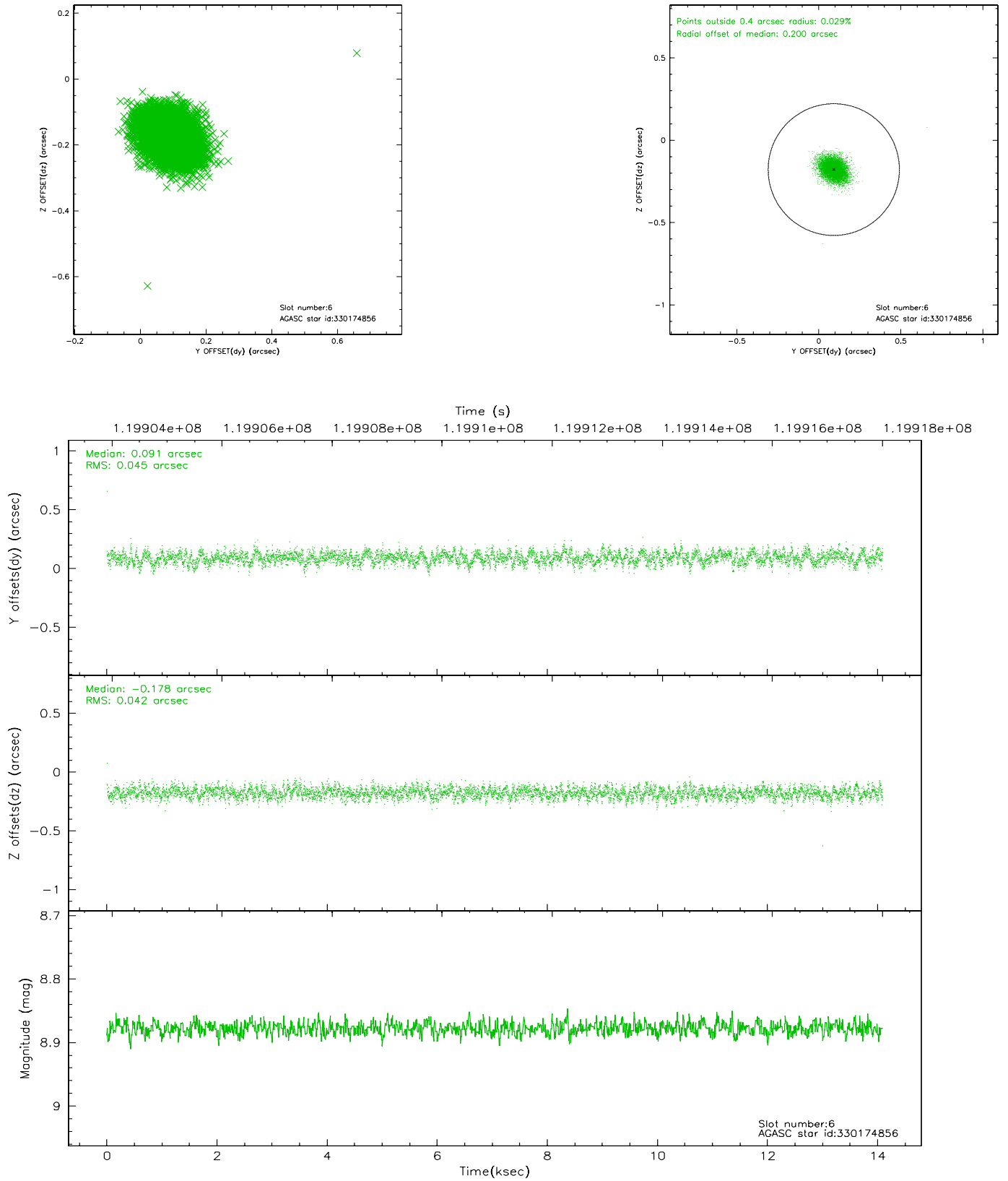
3.4.2 Slot 4



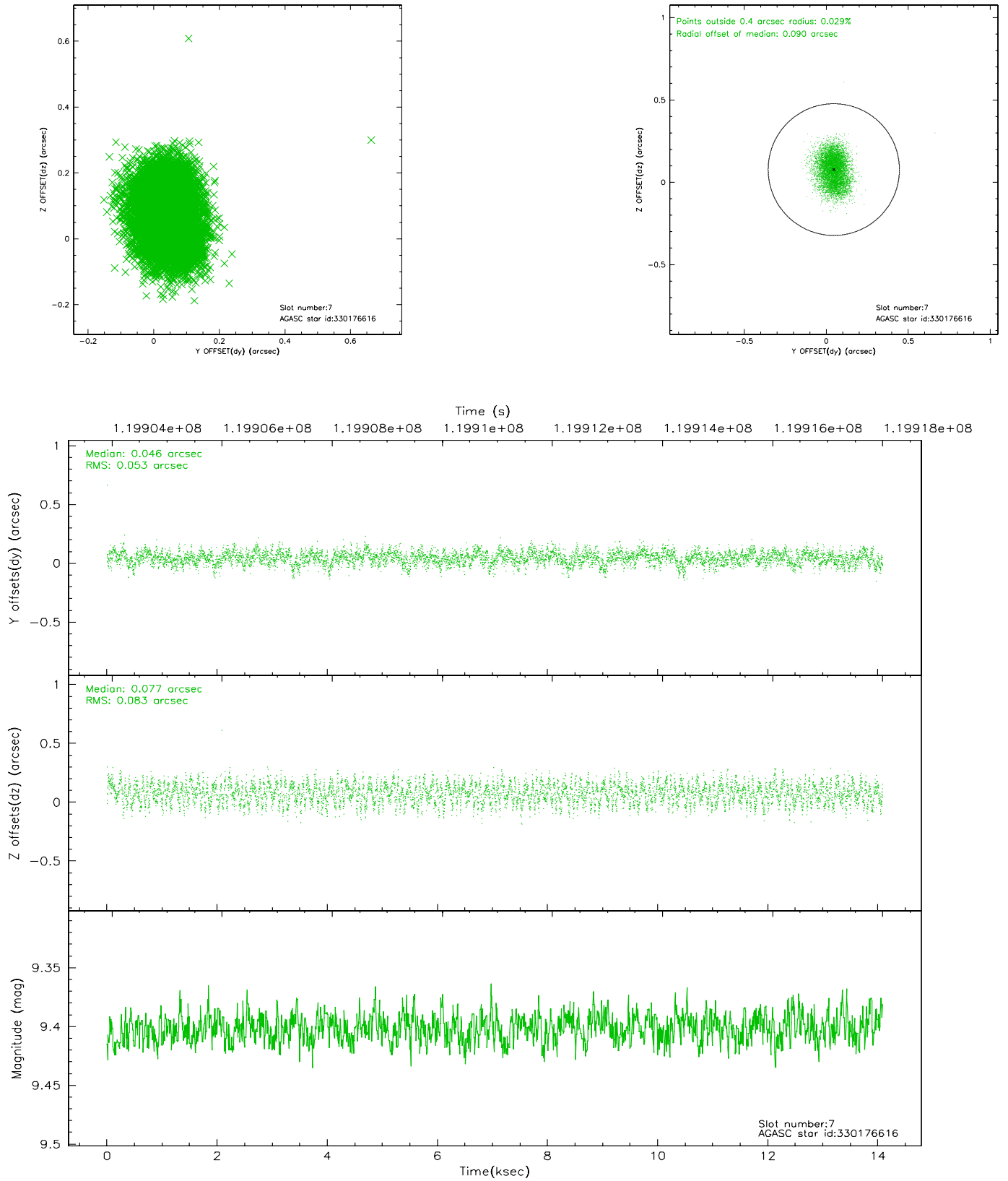
3.4.3 Slot 5



3.4.4 Slot 6

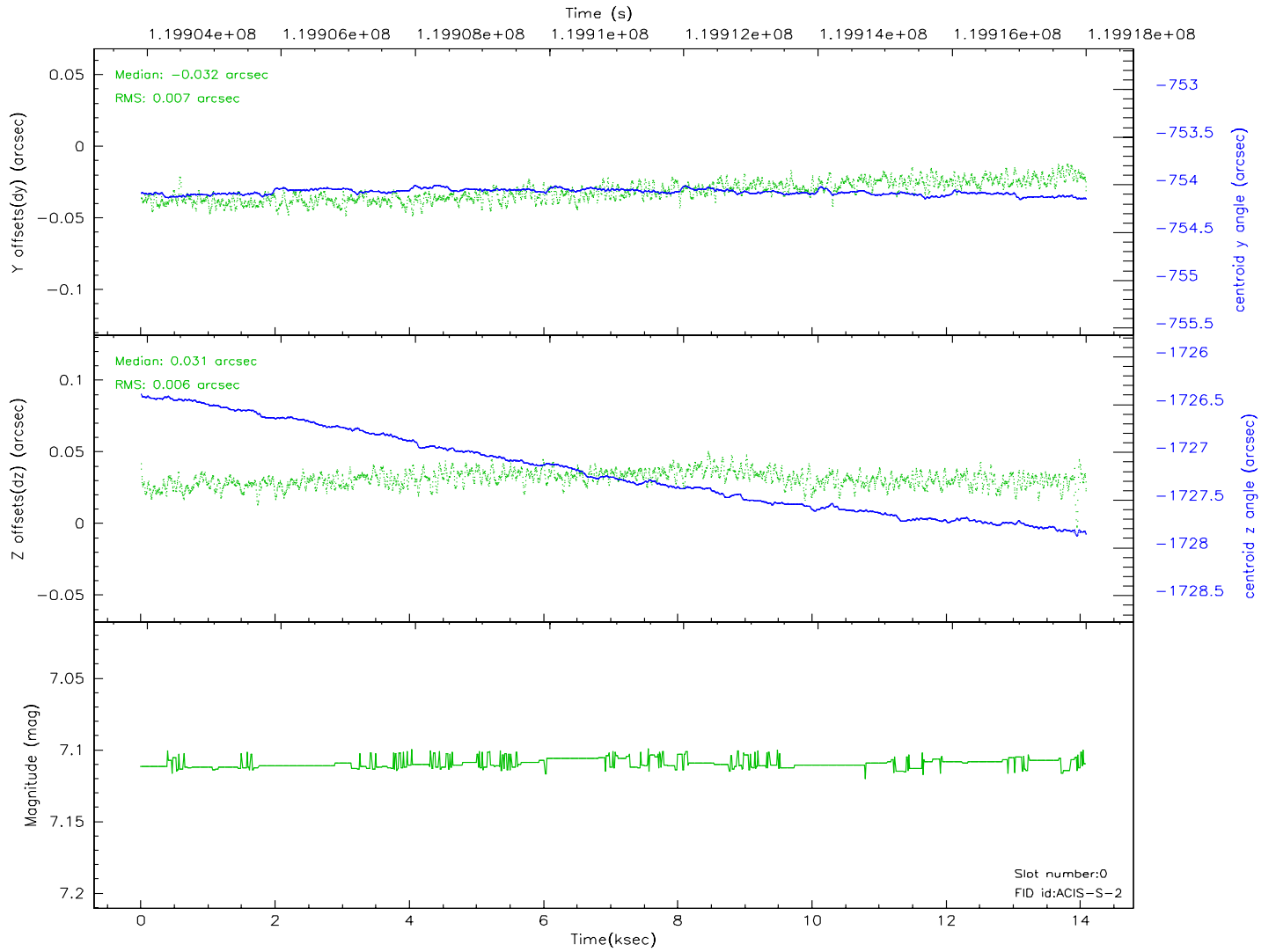
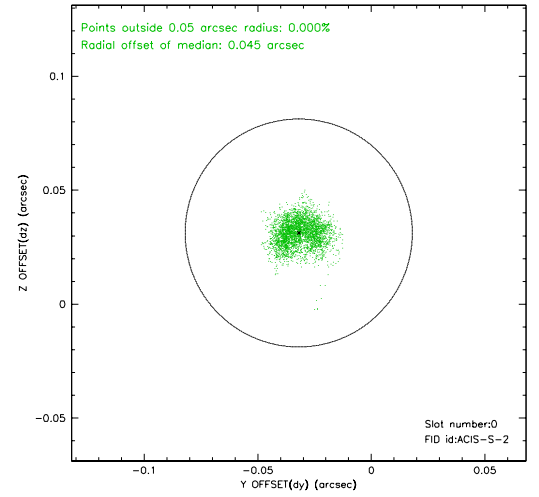
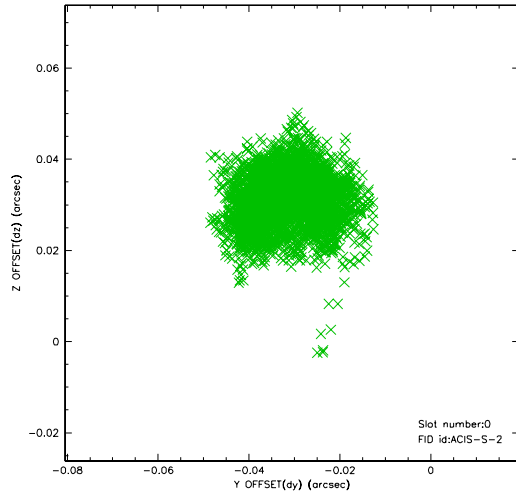


3.4.5 Slot 7

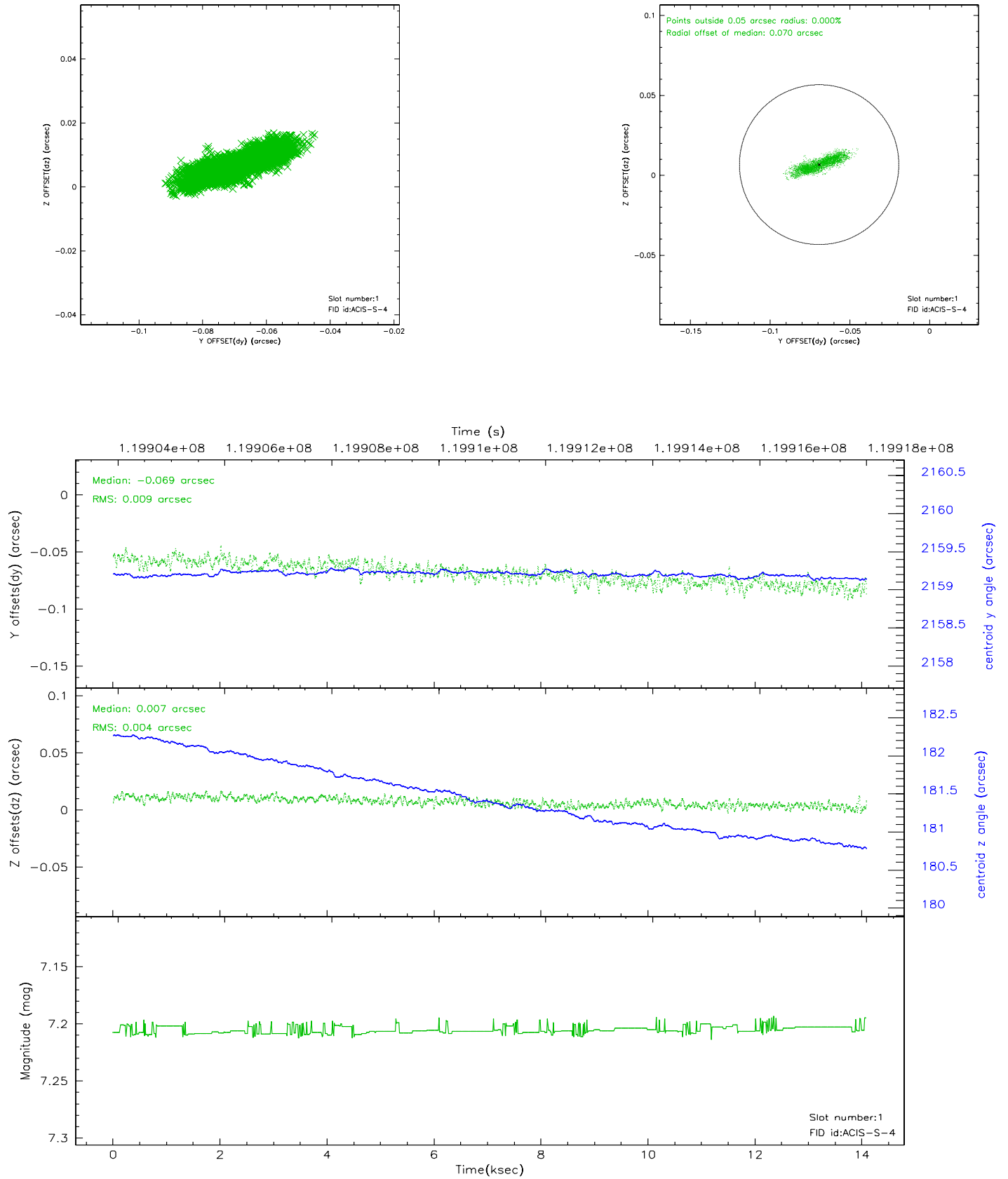


3.5 FID Slots

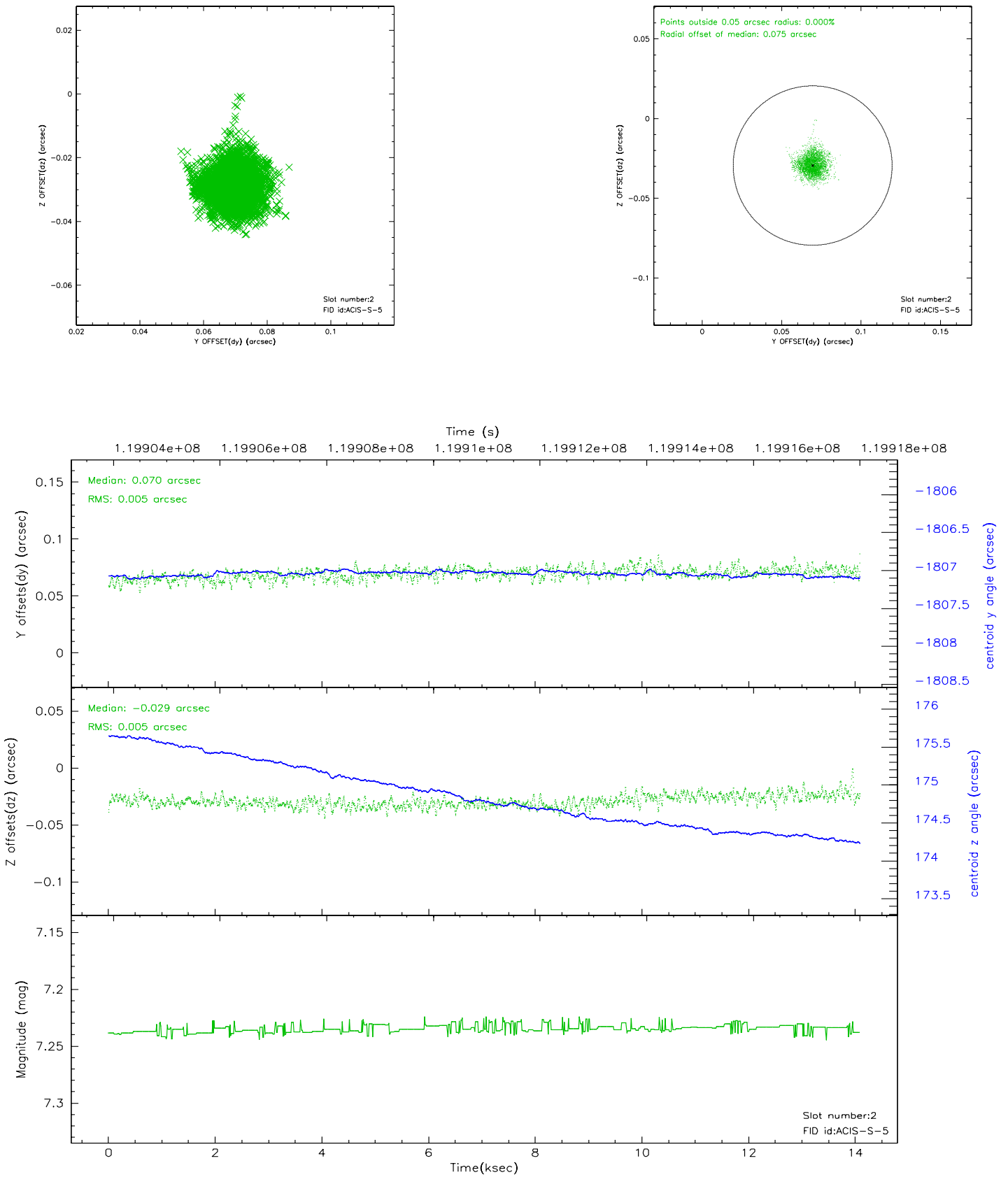
3.5.1 Slot 0



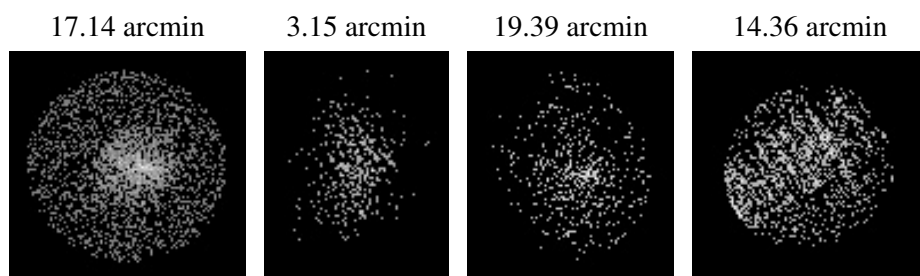
3.5.2 Slot 1



3.5.3 Slot 2



4 Point Sources



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.01.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.76

A.2 Comments

Comments for Obi 1

Charge time for this ObsId remains at original value of 19.76 ks, although with the current processing the charge time would have been 19.73 ksec.

High radiation levels resulted in a decision to safe the ACIS instrument at day 118/04+52 (Apr 28 12:52am). This safing terminated obi=1. The count rate increases starting about 4 ksec into this obi=1 observation and continues to increase until the safing action. This rise in the count rate is due to the high radiation environment. It might be wise to ignore the data between 4 ksec and the end of the observation for obi=1.

Obi=2 has several spikes in the count rate that may be correlated with the radiation environment.