

V&V Reference Report

L2 ASCDS Version : 7.6.7.2

Observation 5171 - L2 Version 001
Chandra X-Ray Center

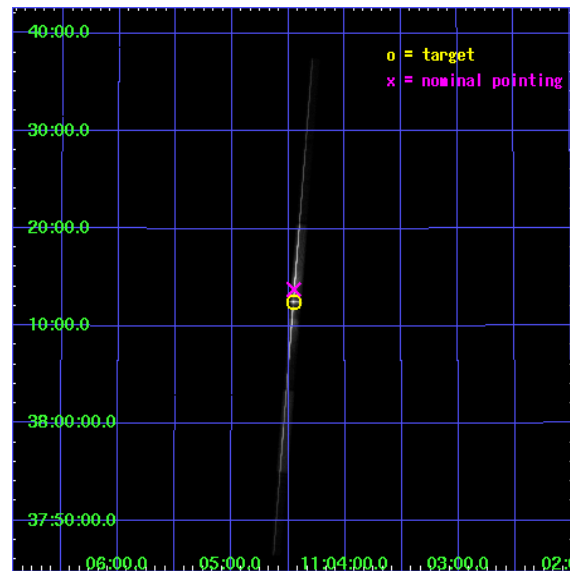
L2 Processing Date : Apr 29 2006

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1 Front

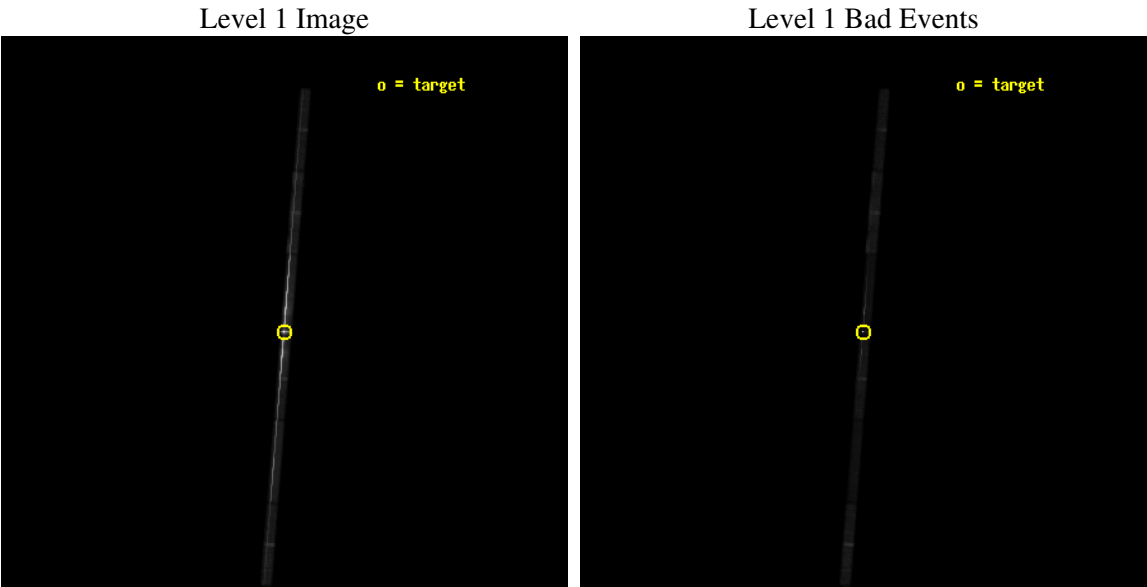
seq_num	790091
obs_id	5171
title	AO5 Calibration Observations of PKS2155-304
observer	Dr. CXC Calibration
object	Mkn 421
dtcycle	0
cycle	P
ra_targ	166.113333
dec_targ	38.208806
ra_nom	166.11268979172
dec_nom	38.229817599311
roll_nom	274.57623708526
revision	2
ontime	67154.401000679
livetime	63877.485970397
ontime4	67154.401000679
ontime5	67154.401000679
ontime6	67154.401000679
ontime7	67154.401000679
ontime8	67154.401000679
ontime9	67154.401000679
l2events	1601561



2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias

Chip 4

Chip 5

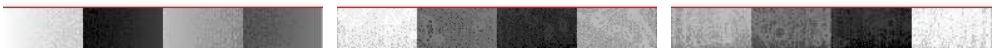
Chip 6



Chip 7

Chip 8

Chip 9



2.1.3 Parameters

obi_num	0
ascdsver	7.6.7.2
caldsver	3.2.1
date	2006-04-29T17:25:32
revision	2

sched_exp_time	67000.000000
ontime	68297.488492578
ontime4	68297.488492578
ontime5	68297.488492578
ontime6	68297.488492578
ontime7	68297.488492578
ontime8	68298.329502702
ontime9	68298.329502702
l1events	2143899

2.1.4 Events

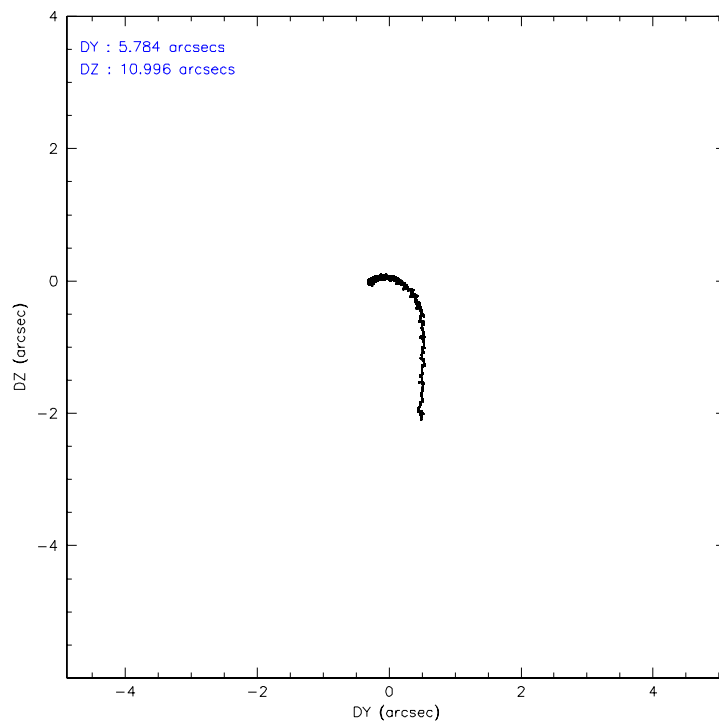
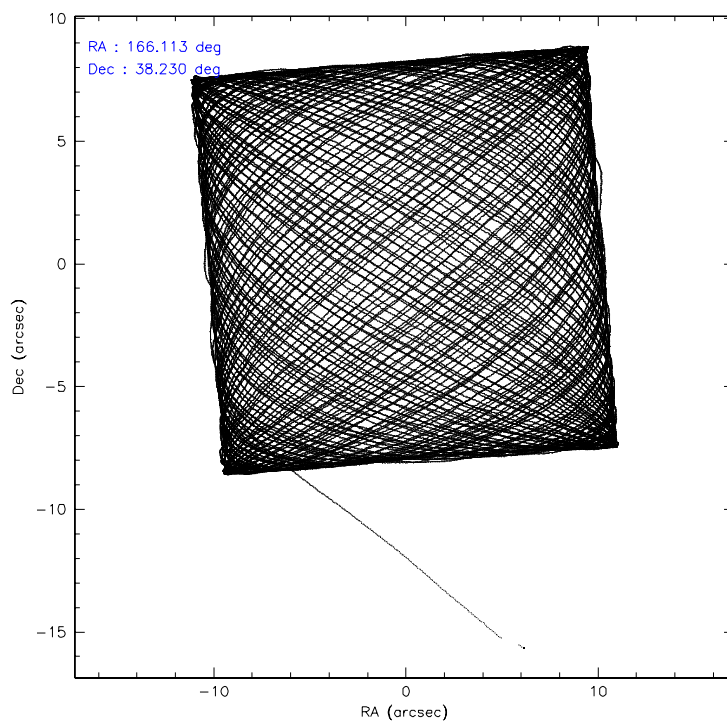
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	102062	185356	606447	1010875	152309	86850
rejected events	77318	49074	74947	138720	86109	61471
rejected %	75%	26%	12%	13%	56%	70%

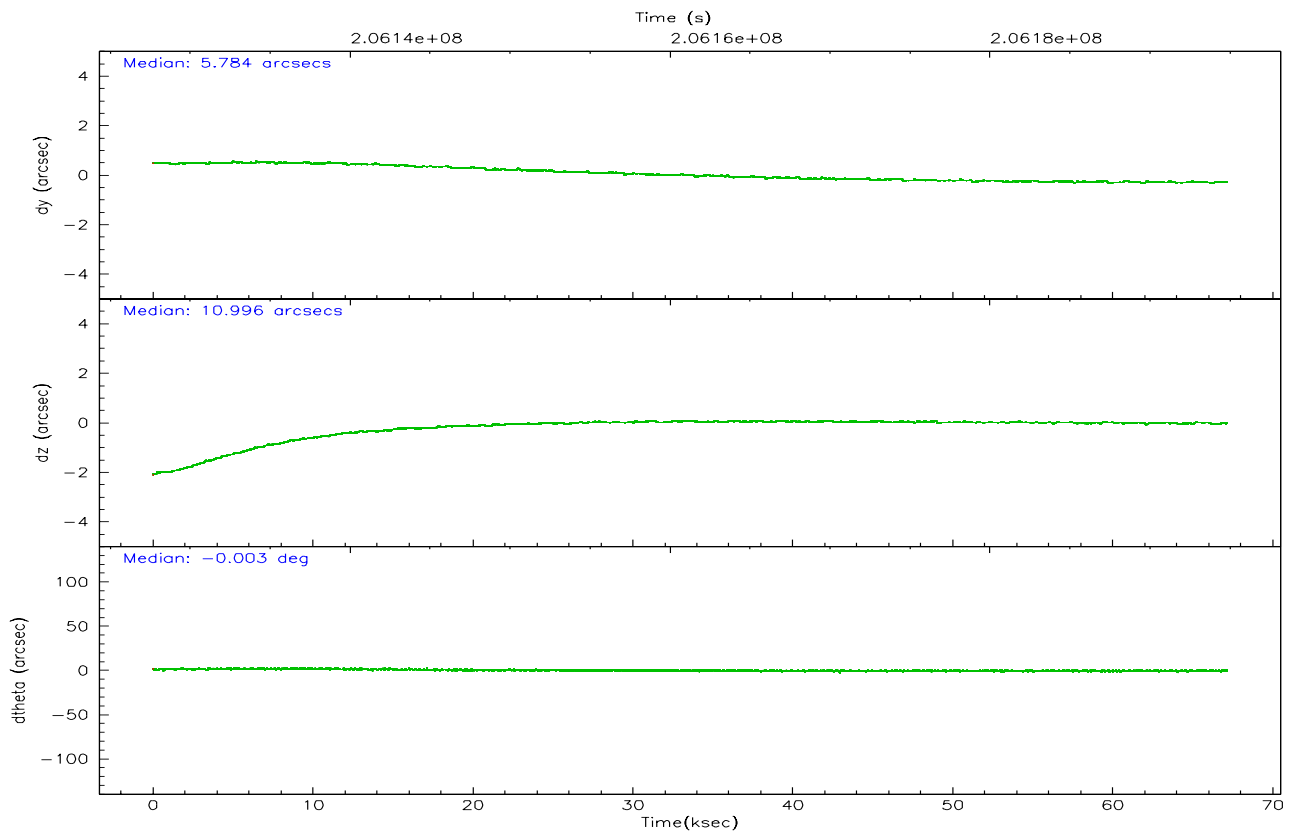
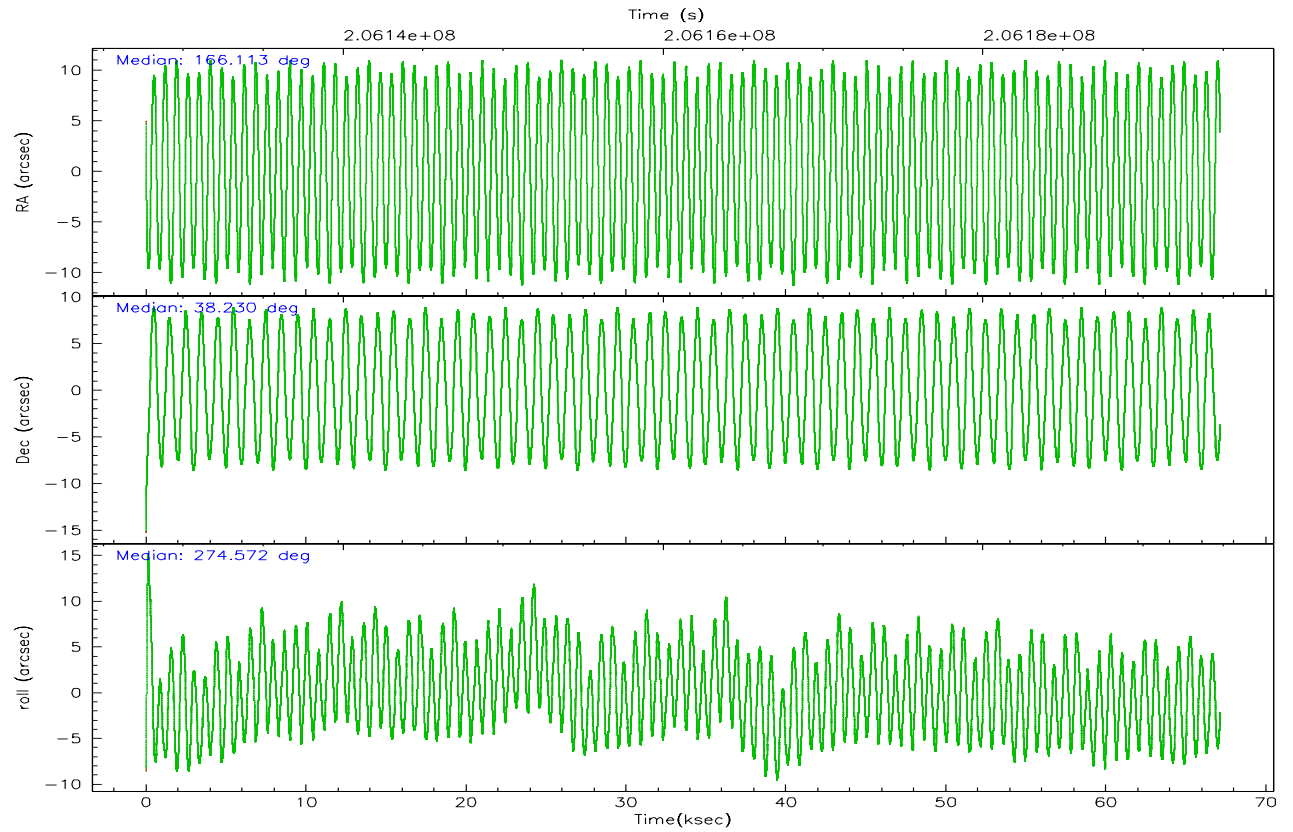
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	16440	57000	425069	207603	43240	17241
	16%	30%	70%	20%	28%	19%
grade 1 events	48	126	2663	3349	91	28
	0%	0%	0%	0%	0%	0%
grade 2 events	3234	30880	55133	226123	8029	2937
	3%	16%	9%	22%	5%	3%
grade 3 events	1764	9709	19093	100842	3906	1832
	1%	5%	3%	9%	2%	2%
grade 4 events	1716	9704	18964	98959	3861	1827
	1%	5%	3%	9%	2%	2%
grade 5 events	2318	6211	4296	23129	3352	2575
	2%	3%	0%	2%	2%	2%
grade 6 events	1766	29958	14449	241138	7449	1731
	1%	16%	2%	23%	4%	1%
grade 7 events	74776	41768	66780	109732	82381	58679
	73%	22%	11%	10%	54%	67%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	CUSTOM	1/8
Pointing RA	166.092632	166.1126897917188	Subarray start row	1	1
Pointing Dec	38.252011	38.2298175993111	Subarray row count	128	128
Pointing Roll	274.432023	274.5762370852635	Alternating exposures requested	N	N
Window start time	202435264.184000	202435264.184000	Primary exposure time	0.000000	0.8
Window stop time	207619264.184000	207619264.184000			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-178.632523	-178.6345592299333			
SIM translation stage offset (mm)	-11.5	-11.49796335307448			
Observation start time	206127838.184000	206126444.9627			
Observation start date	2004-07-13T17:42:54	2004-07-13T17:20:44			
Observation end time	206194838.184000	206194972.36574			
Observation end date	2004-07-14T12:19:34	2004-07-14T12:22:52			
Read mode	TIMED	TIMED			

2.3 Aspect



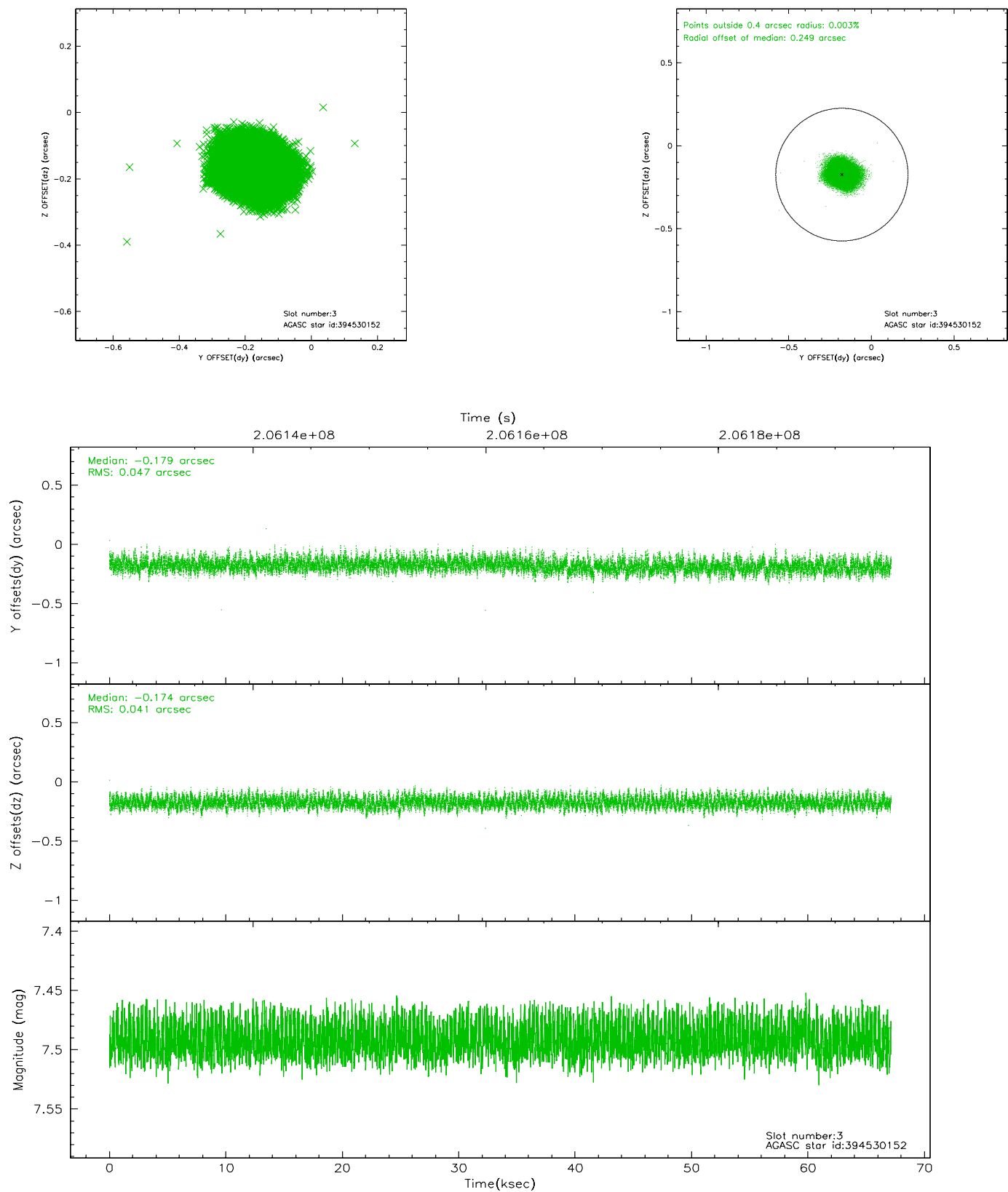


Slot Statistics

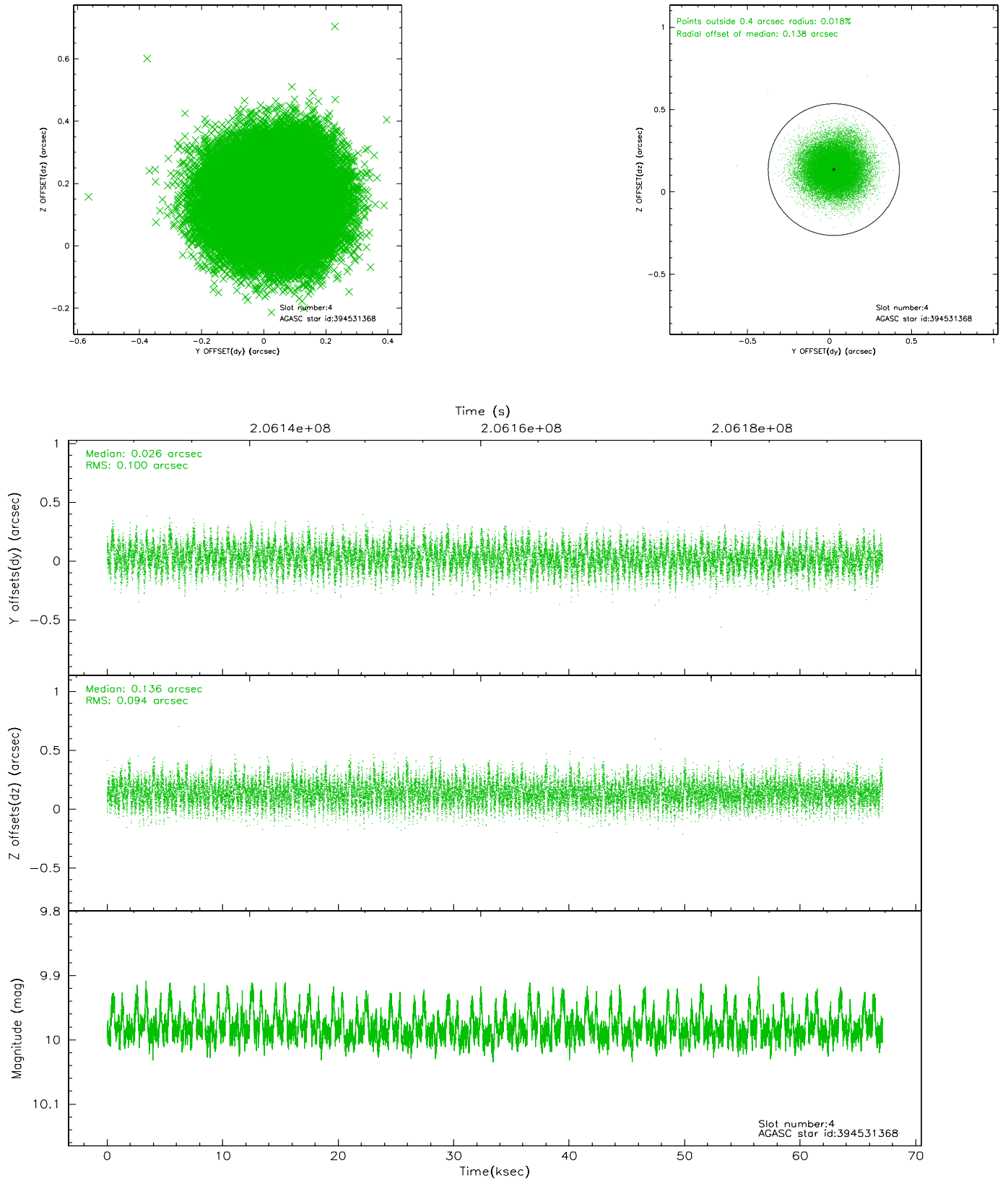
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	16380	0.101	0.127	0.010	0.018	0.000000	0.000000	938.34	-1964.27
1	FID	ACIS-S-5	7.23	16379	-0.096	0.131	0.009	0.015	0.000000	0.000000	-1810.79	-66.56
2	FID	ACIS-S-6	7.43	16380	-0.026	-0.248	0.010	0.015	0.000000	0.000000	403.94	576.86
3	GUIDE	394530152	7.49	32757	-0.179	-0.174	0.067	0.107	166.075805	38.868252	-2215.44	124.32
4	GUIDE	394531368	9.98	32723	0.026	0.136	0.148	0.236	165.794613	38.837127	-2165.81	-670.12
5	GUIDE	394533848	8.71	32746	0.181	0.068	0.080	0.134	166.382906	38.276007	-24.12	823.47
6	GUIDE	394543960	9.80	32720	0.046	-0.050	0.119	0.192	165.802757	37.787371	1603.05	-951.09
7	GUIDE	394546712	6.60	32757	-0.077	0.018	0.056	0.090	166.451462	38.394357	-434.46	1049.03

2.4 Star Slots

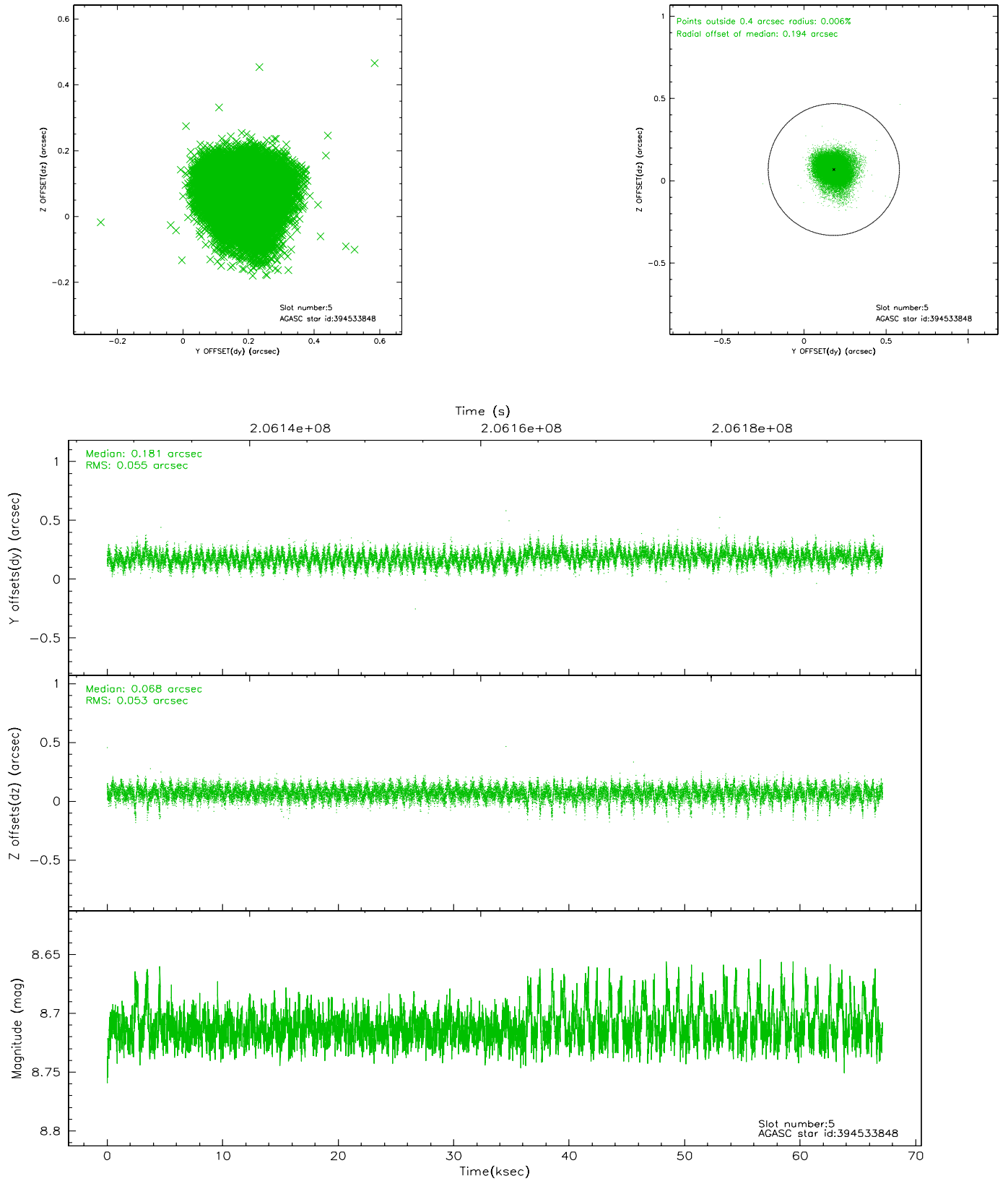
2.4.1 Slot 3



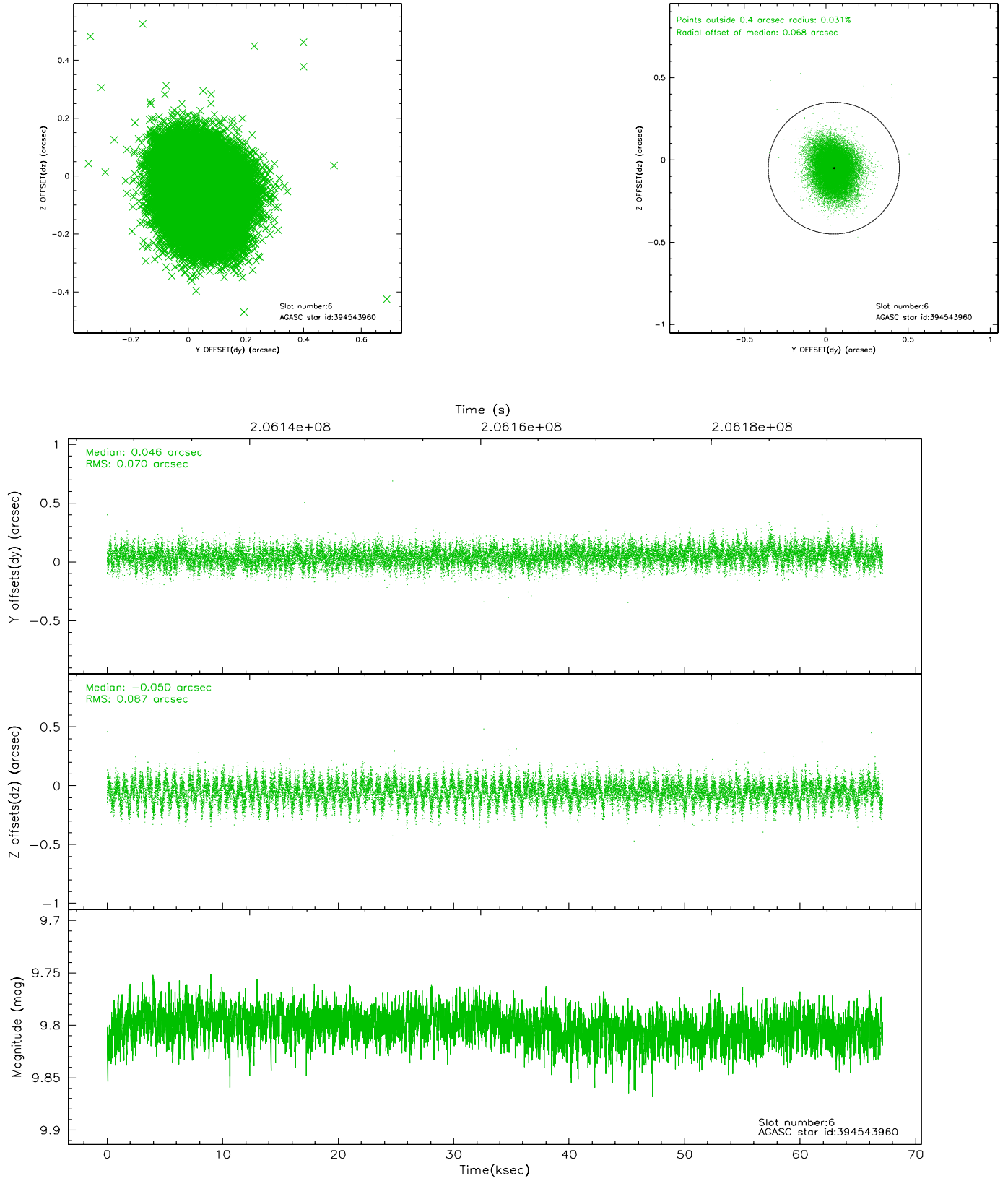
2.4.2 Slot 4



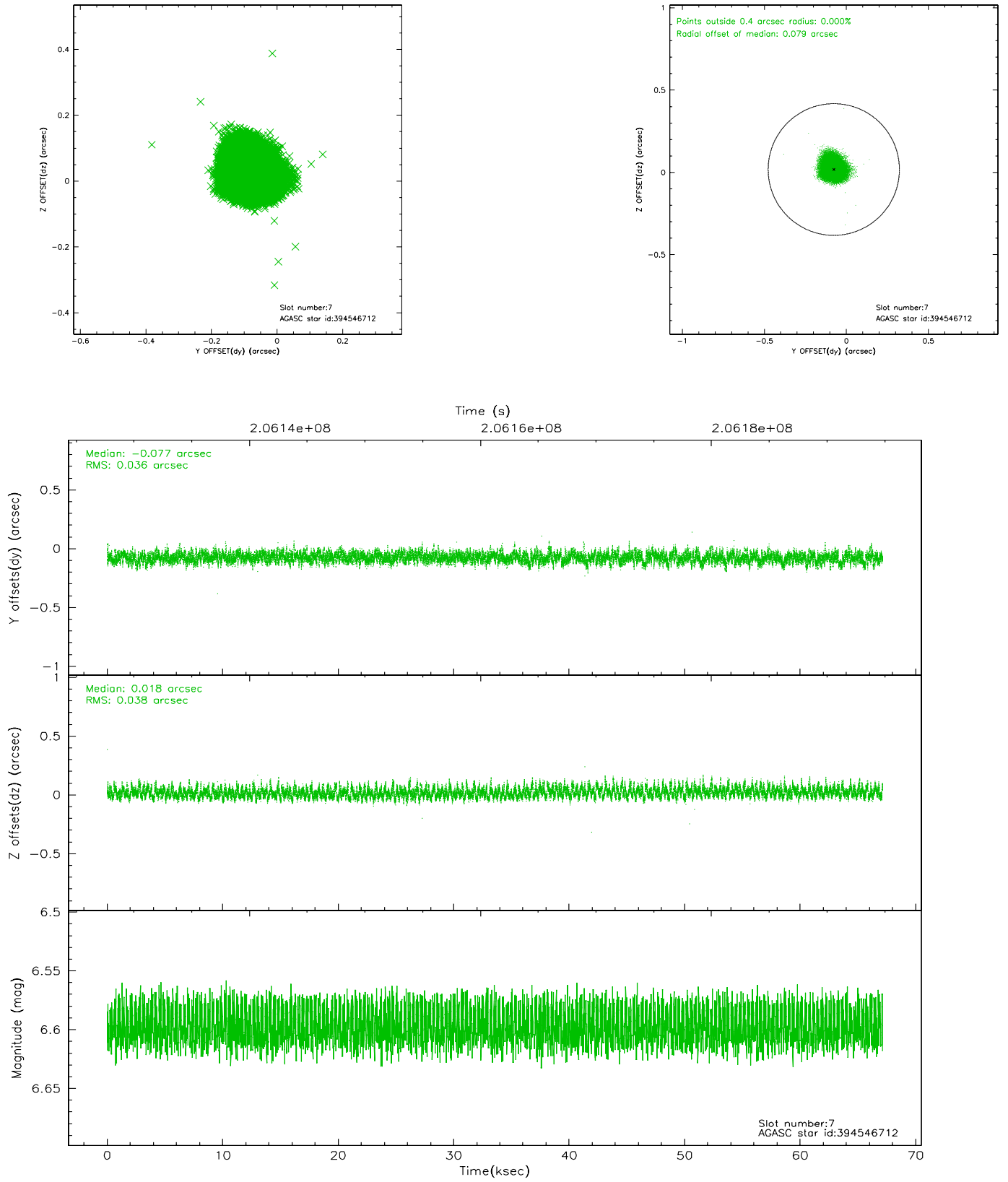
2.4.3 Slot 5



2.4.4 Slot 6

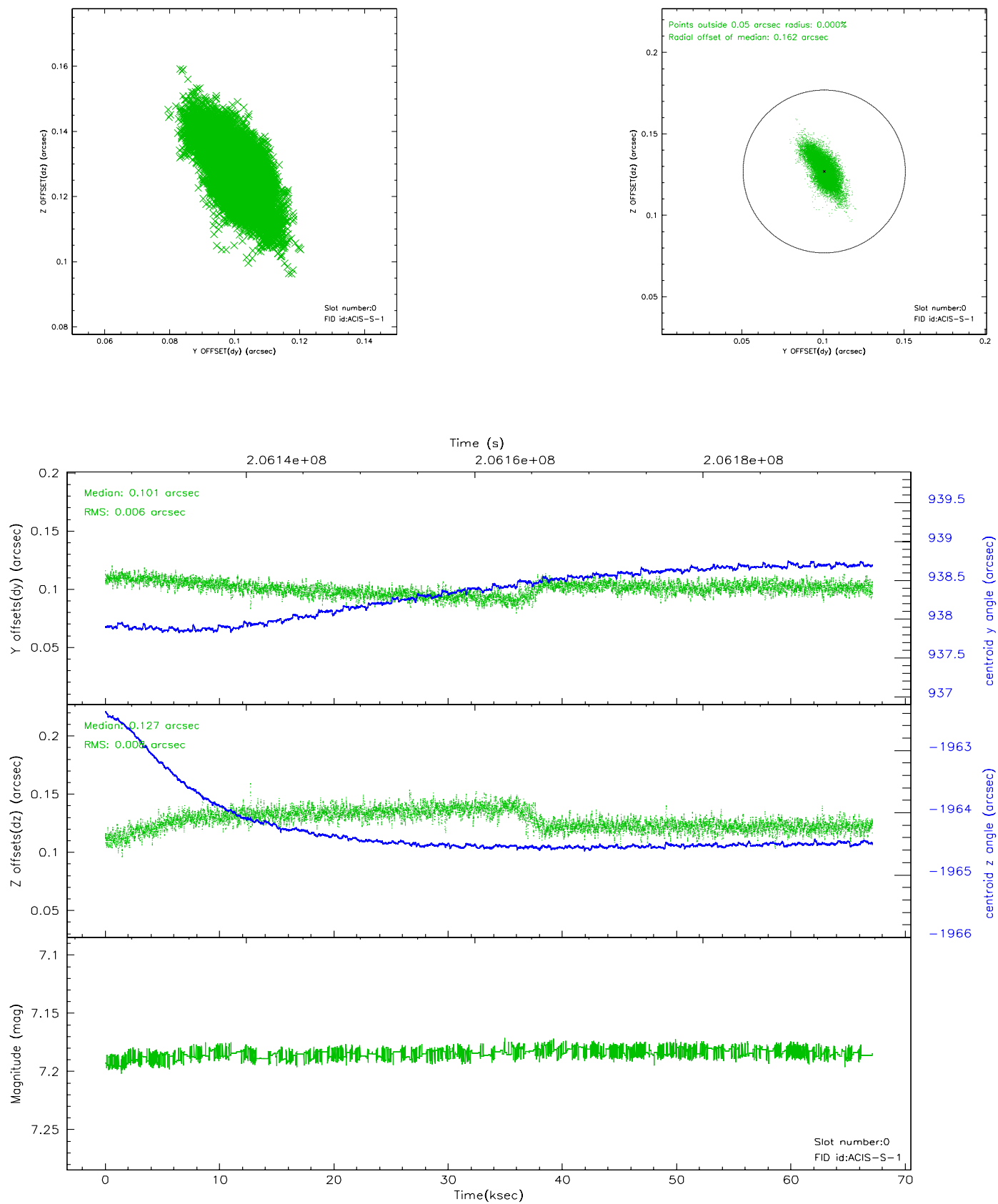


2.4.5 Slot 7

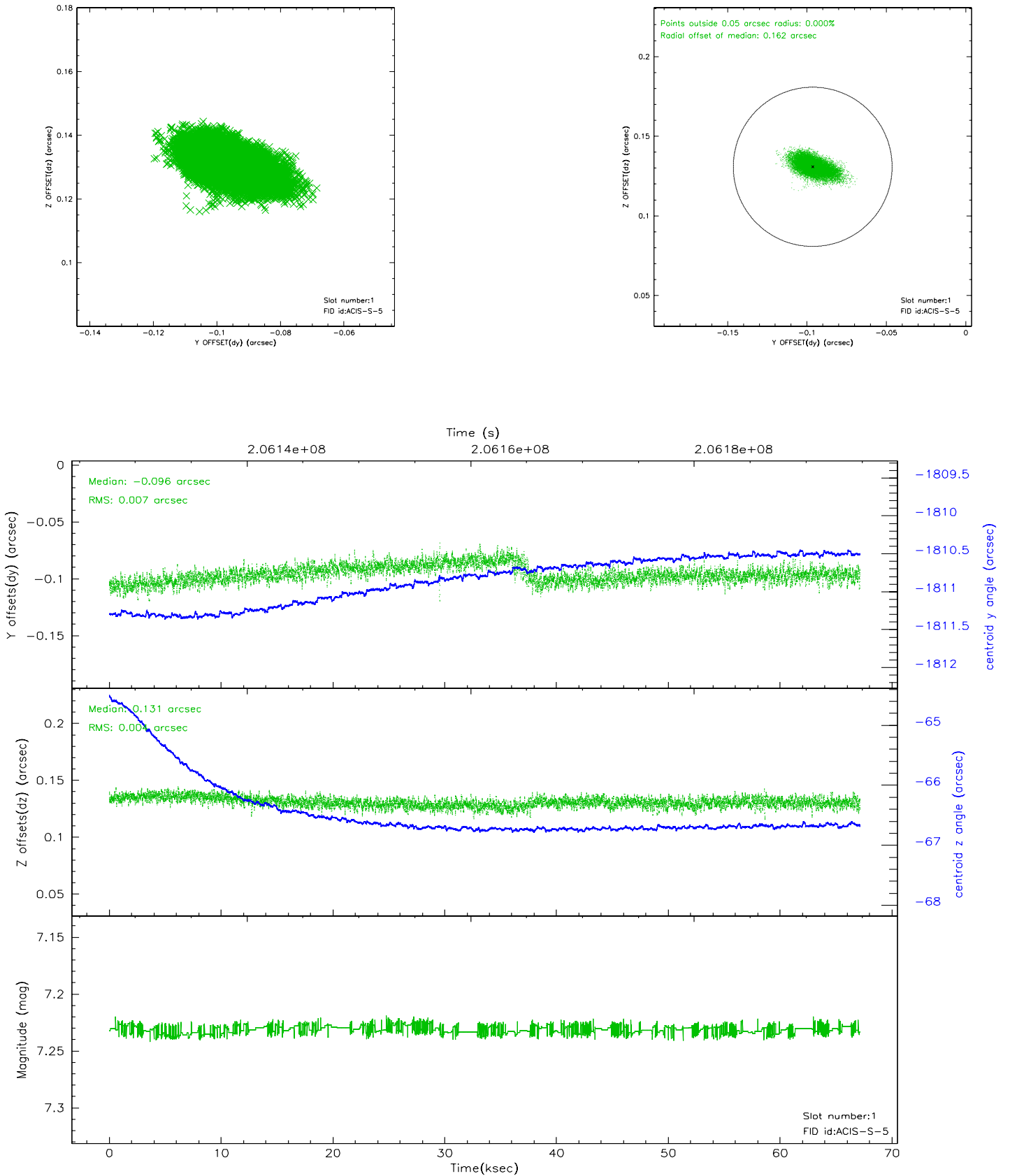


2.5 FID Slots

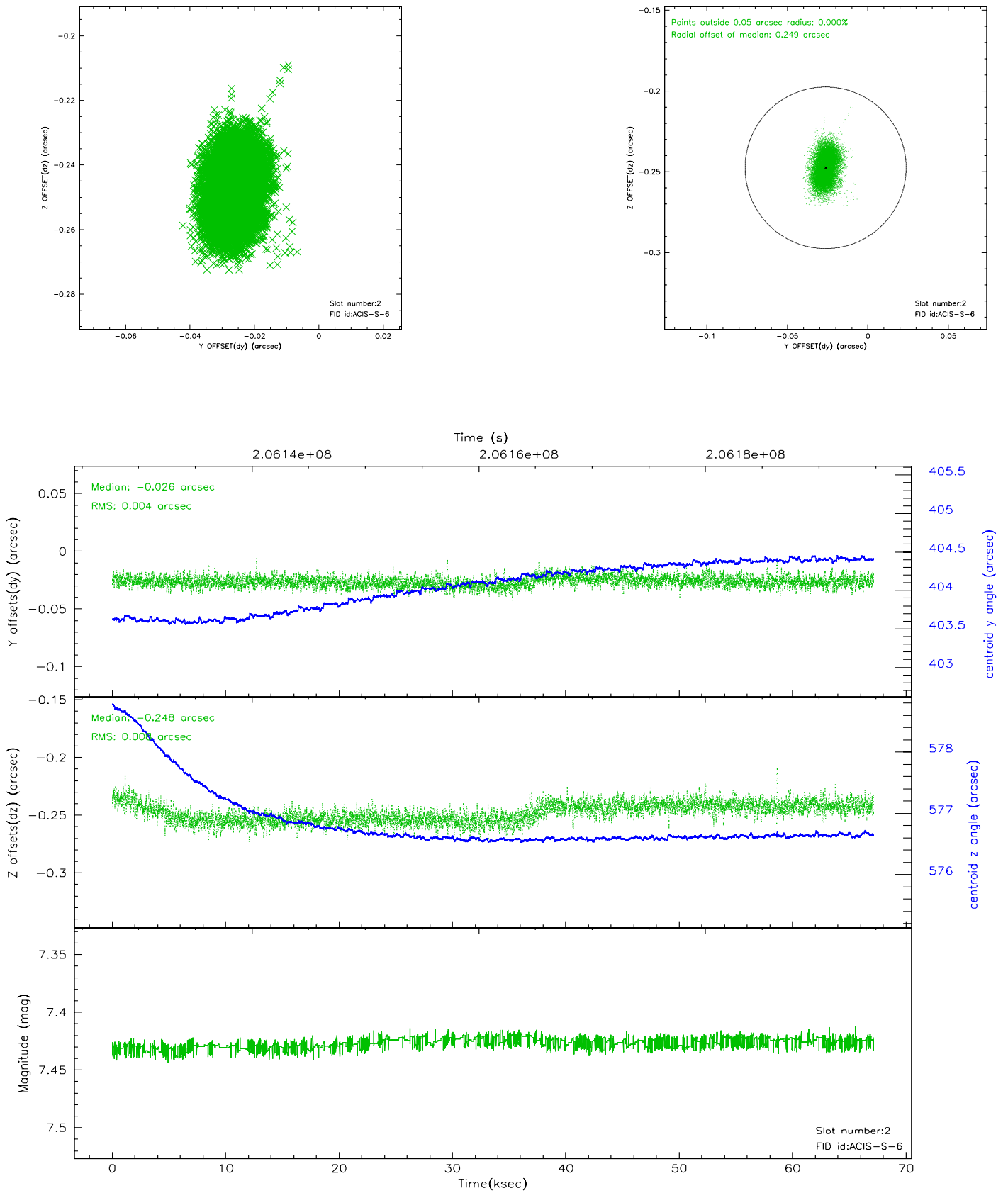
2.5.1 Slot 0



2.5.2 Slot 1

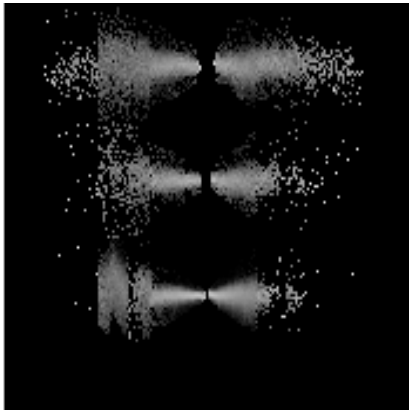


2.5.3 Slot 2

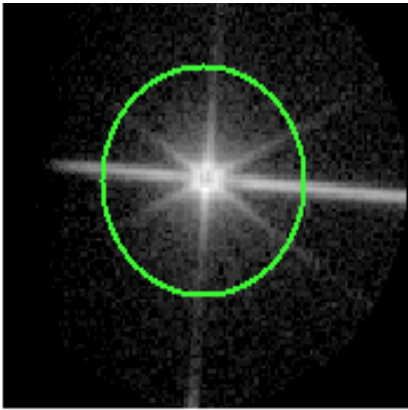


3 Gratings

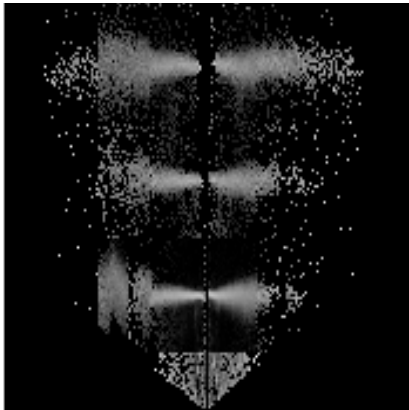
3.1 LETG Arm



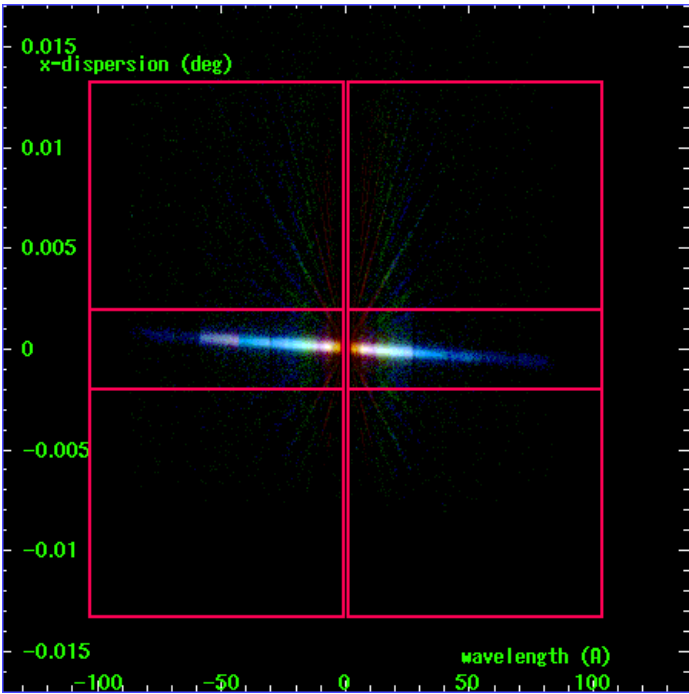
LETG Order Sort 123



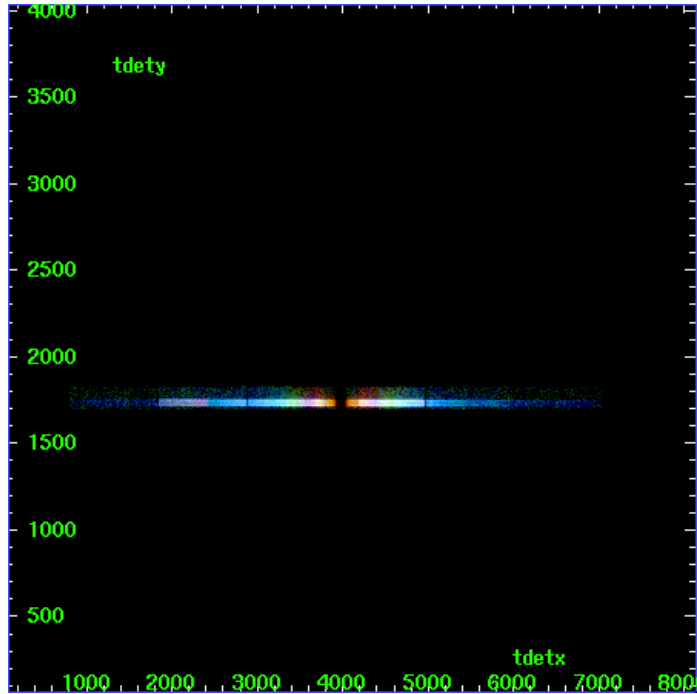
LETG Zero Order



LETG Order Sort ALL

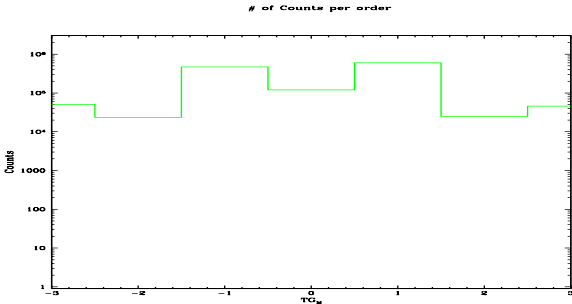


Spot Image LETG

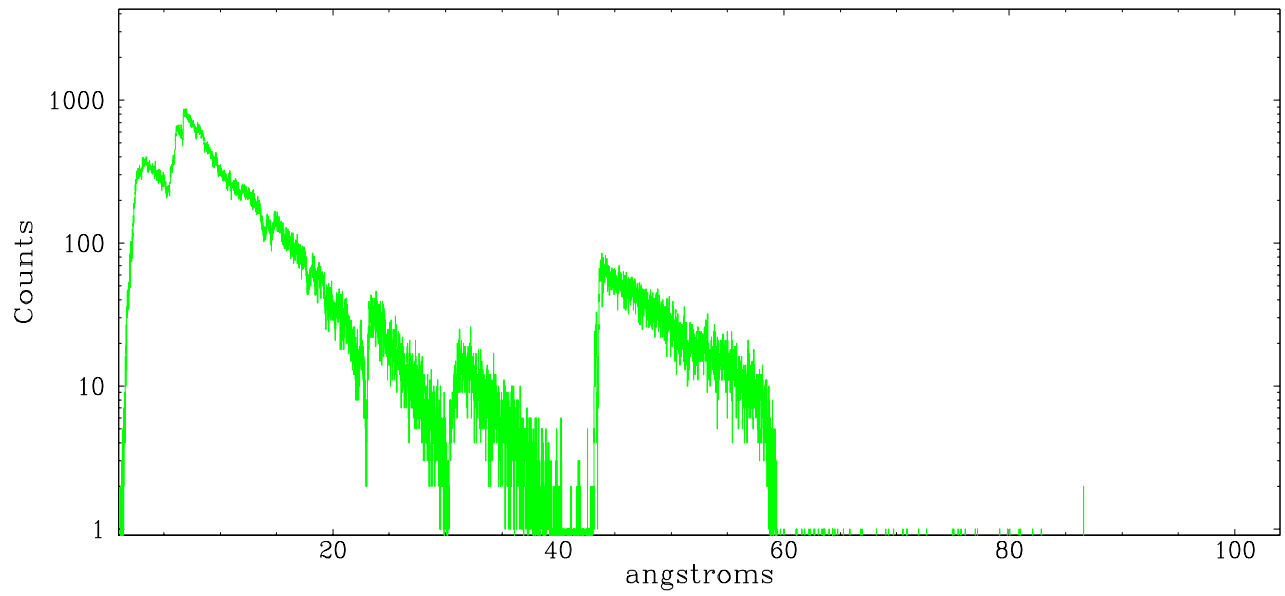


Full Detector LETG

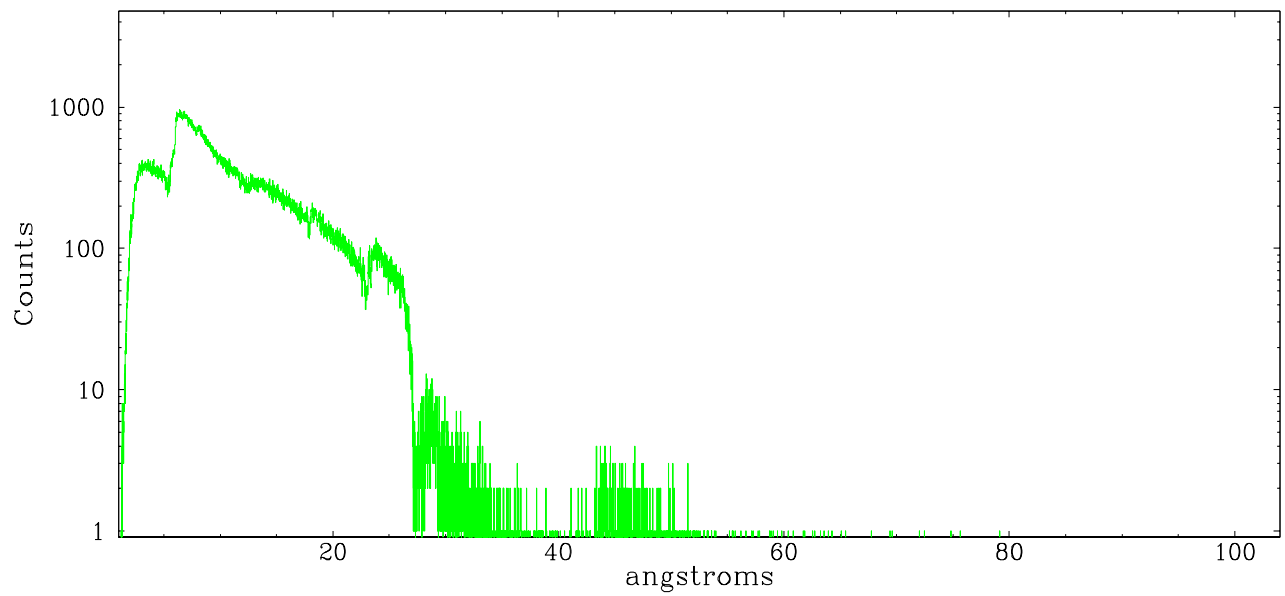
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	50536	23606	471091	119524	601392	24775	45541



leg order -1



leg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.05.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	67.154

A.2 Comments

Window constraint met.

The focal plane temperature drops by more than a degree during the first 10 ksec of the observation. The focal plane temperature is outside the calibration limits for the first 4 ksec of the observation, then within calibrated range for the rest of the observation.

Target placed near the edge of the chip for calibration purposes.