

V&V Reference Report

L2 ASCDS Version : 7.6.7.2

Observation 5331 - L2 Version 001
Chandra X-Ray Center

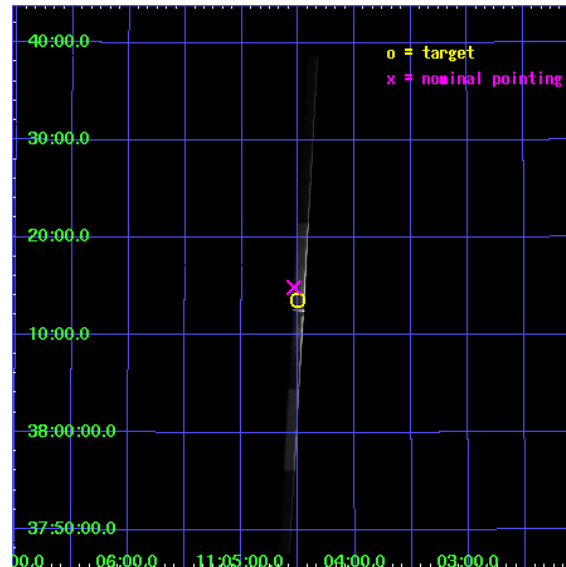
L2 Processing Date : Apr 29 2006

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1 Front

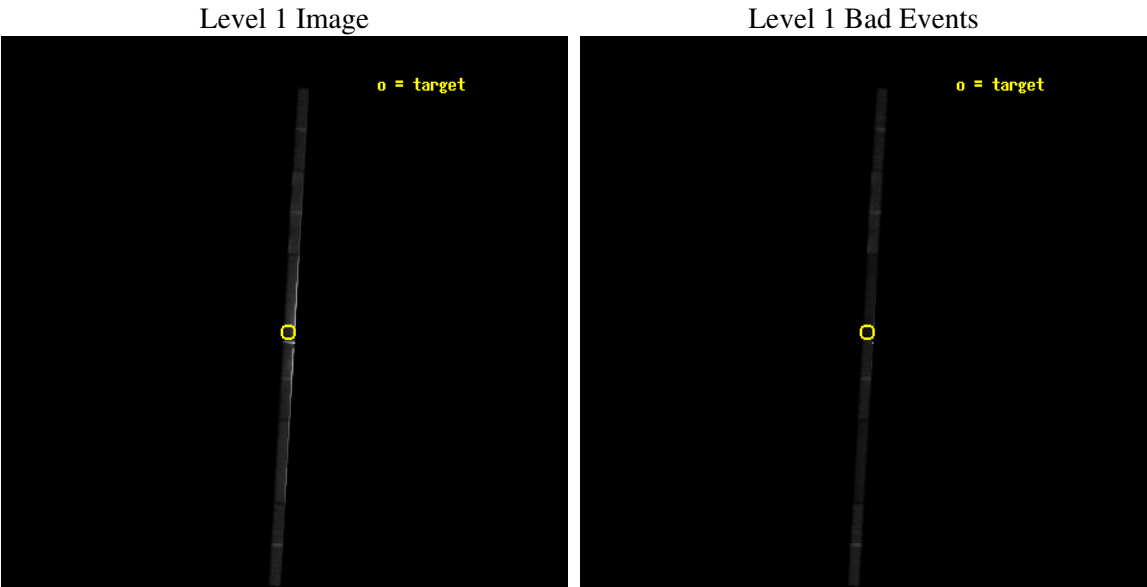
seq_num	790095
obs_id	5331
title	Measuring the spatial variation in the depth and composition of the ACIS contaminant with PKS 2155-304.
observer	Dr. CXC Calibration
object	Mkn 421
dtcycle	0
cycle	P
ra_targ	166.126421
dec_targ	38.22717
ra_nom	166.13448995396
dec_nom	38.248540189284
roll_nom	273.3076412614
revision	2
ontime	69504.00103569
livetime	66112.433211919
ontime4	69504.00103569
ontime5	69504.00103569
ontime6	69504.00103569
ontime7	69504.00103569
ontime8	69504.00103569
ontime9	69504.00103569
l2events	927246



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
caldbver	3.2.1
date	2006-04-29T17:26:09
revision	2

sched_exp_time	69337.890000
ontime	69754.147986442
ontime4	69753.306976348
ontime5	69754.147986442
ontime6	69754.147986442
ontime7	69754.147986442
ontime8	69754.147986442
ontime9	69754.147986442
l1events	1426403

2.1.4 Events

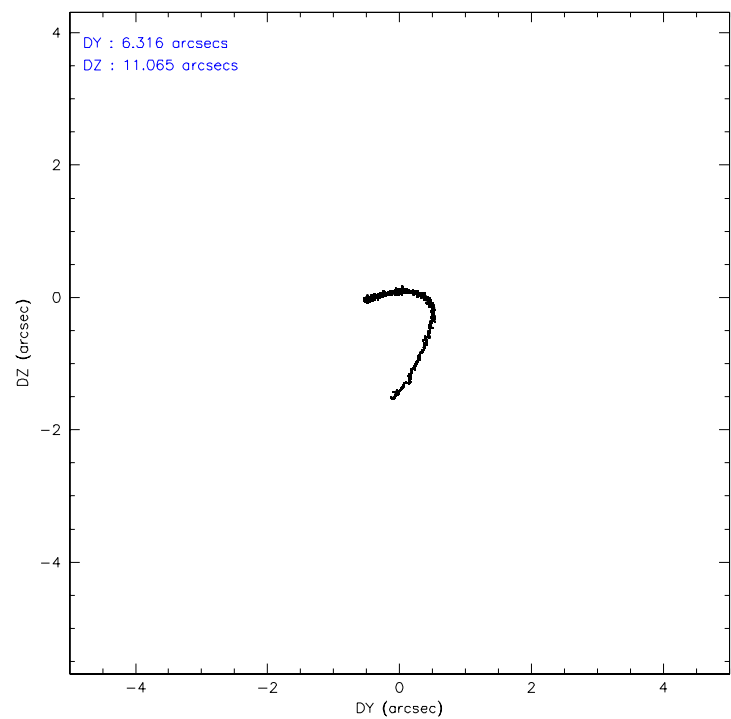
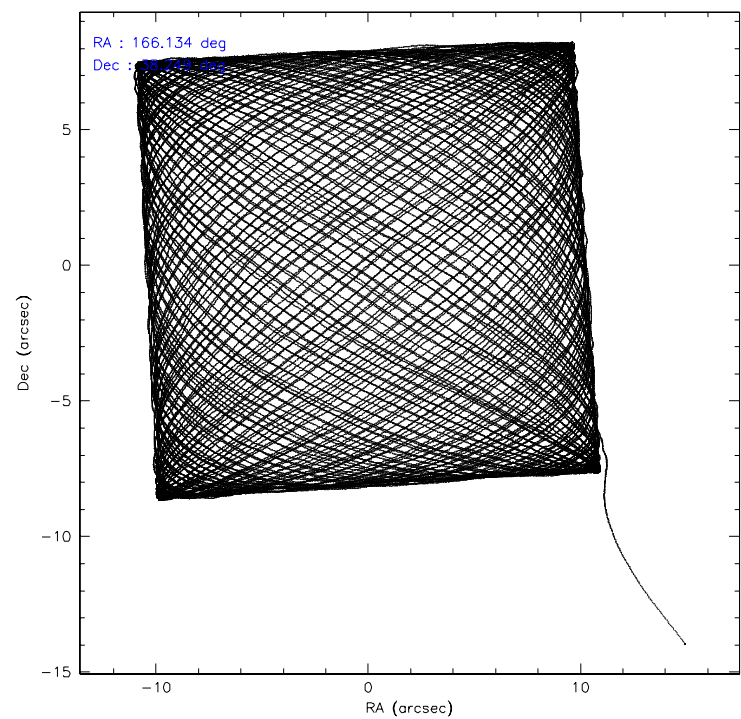
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	97000	153547	498169	465139	131745	80803
rejected events	78805	50440	122220	54853	89038	62927
rejected %	81%	32%	24%	11%	67%	77%

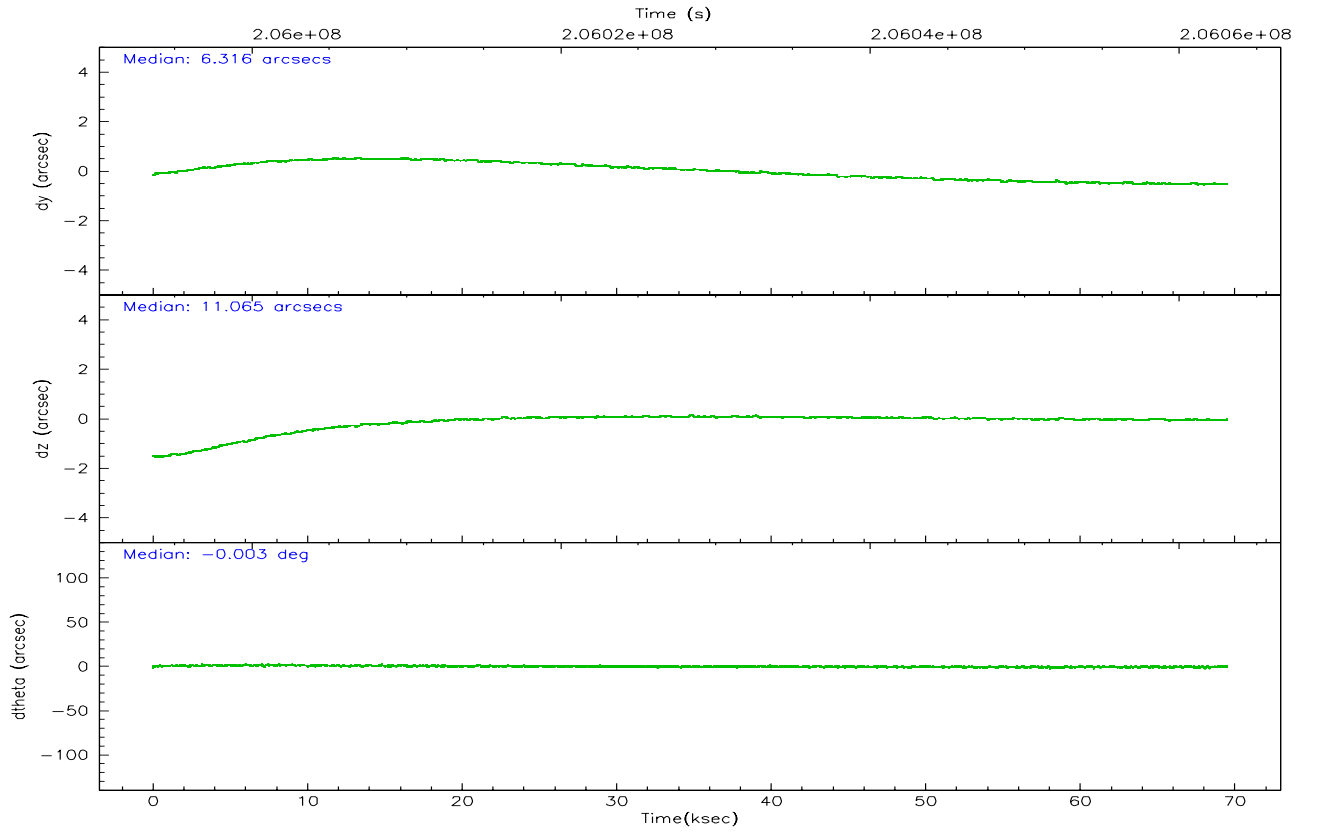
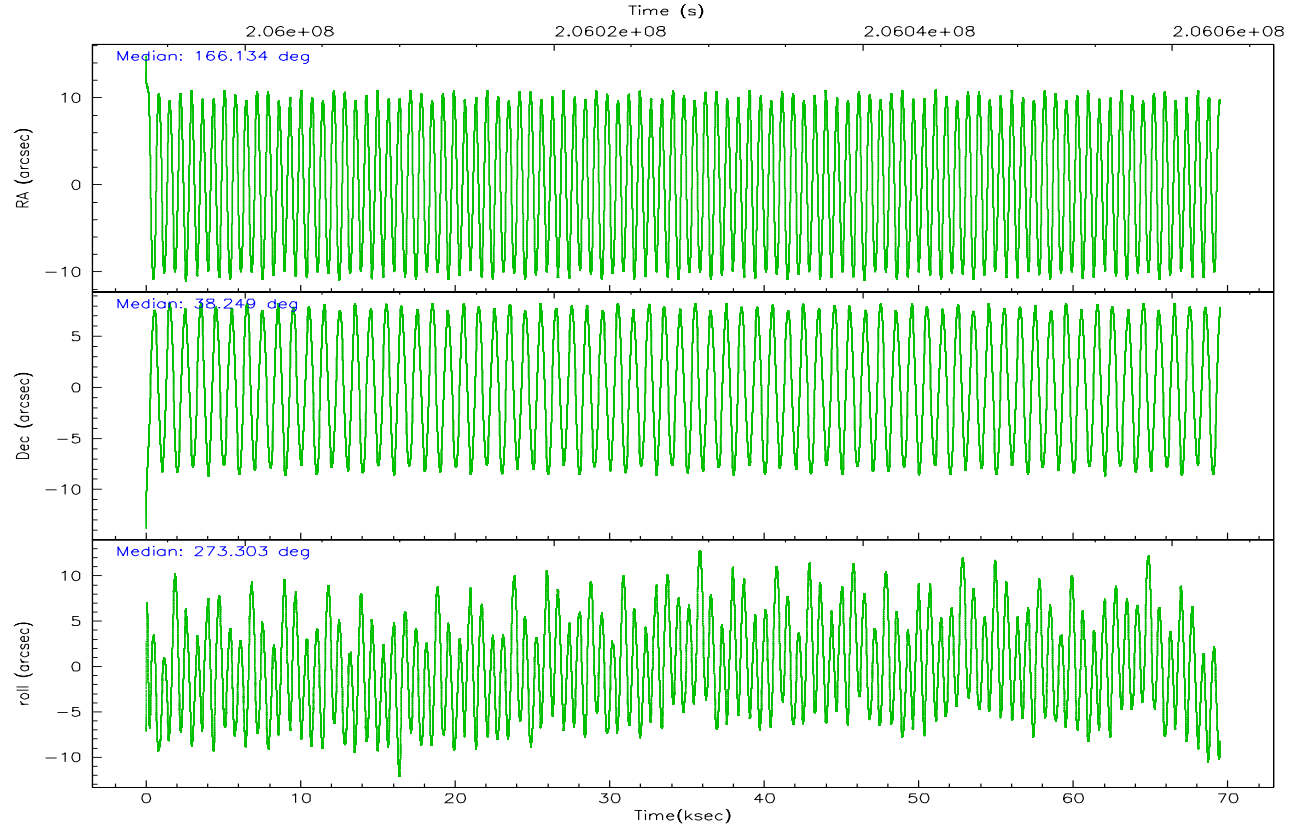
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	10686	36664	281771	99623	23480	10675
	11%	23%	56%	21%	17%	13%
grade 1 events	36	112	14501	598	72	29
	0%	0%	2%	0%	0%	0%
grade 2 events	2672	24915	43639	108134	5928	2176
	2%	16%	8%	23%	4%	2%
grade 3 events	1659	6982	15345	46455	3433	1696
	1%	4%	3%	9%	2%	2%
grade 4 events	1565	6709	15406	45464	3175	1620
	1%	4%	3%	9%	2%	2%
grade 5 events	2513	6321	17276	10210	3544	2679
	2%	4%	3%	2%	2%	3%
grade 6 events	1650	27999	19893	110781	6797	1741
	1%	18%	3%	23%	5%	2%
grade 7 events	76219	43845	90338	43874	85316	60187
	78%	28%	18%	9%	64%	74%

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	166.115052	166.1344899539565	Subarray start row	36	36
Pointing Dec	38.271073	38.2485401892844	Subarray row count	128	128
Pointing Roll	273.163051	273.3076412614049	Alternating exposures requested	N	N
Window start time	205027264.184000	205027264.184000	Primary exposure time	0.000000	0.8
Window stop time	207705604.184000	207705604.184000			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-178.632523	-178.6370735452349			
SIM translation stage offset (mm)	-11.5	-11.49544903777291			
Observation start time	205993766.184000	205992759.84426			
Observation start date	2004-07-12T04:28:22	2004-07-12T04:12:39			
Observation end time	206063104.184000	206063317.25989			
Observation end date	2004-07-12T23:44:00	2004-07-12T23:48:37			
Read mode	TIMED	TIMED			

2.3 Aspect



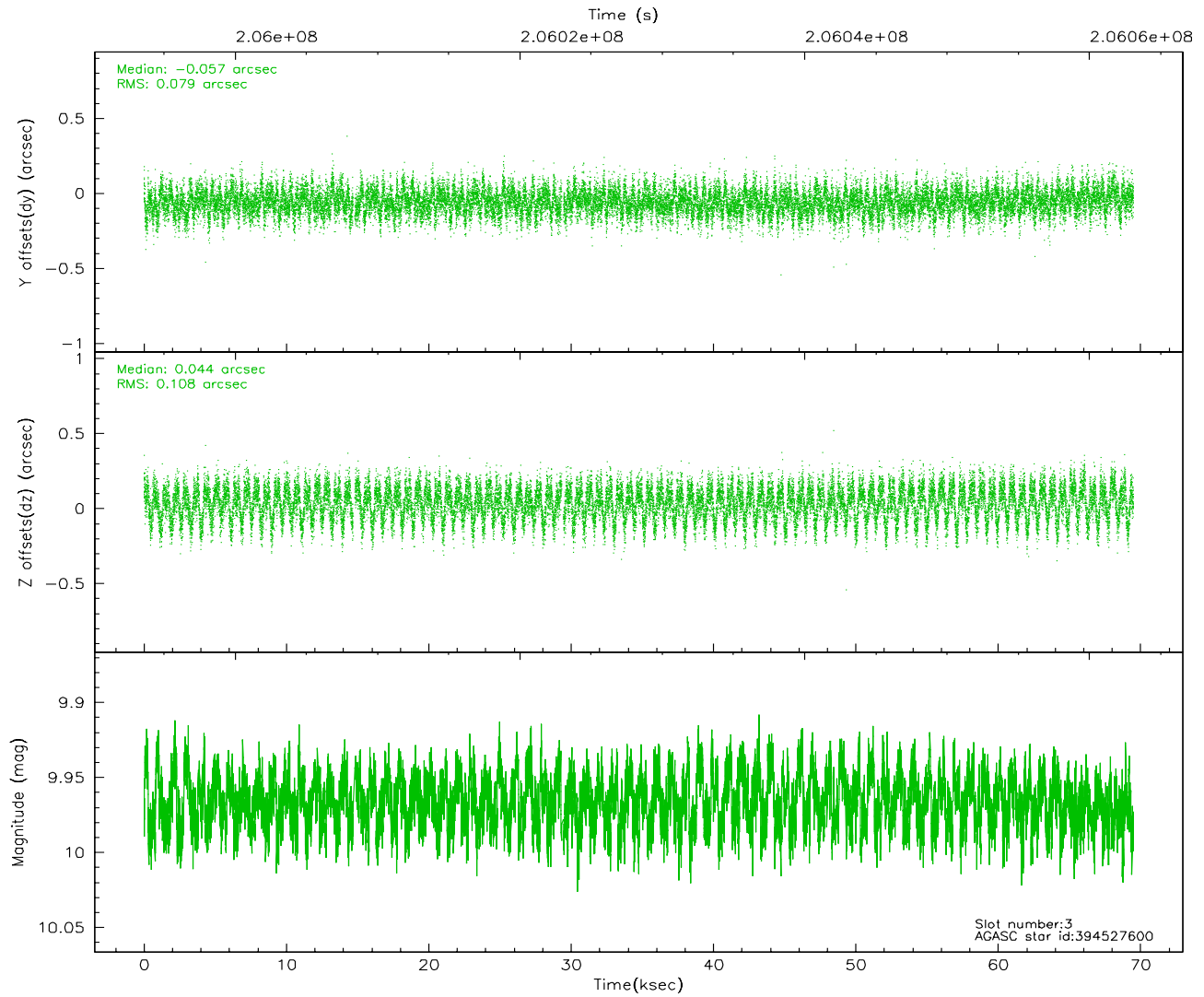
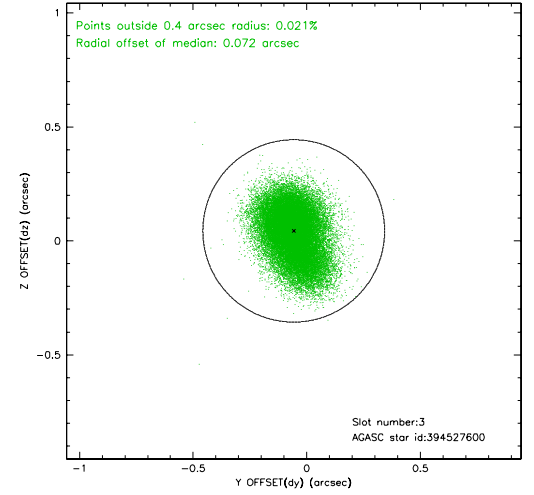
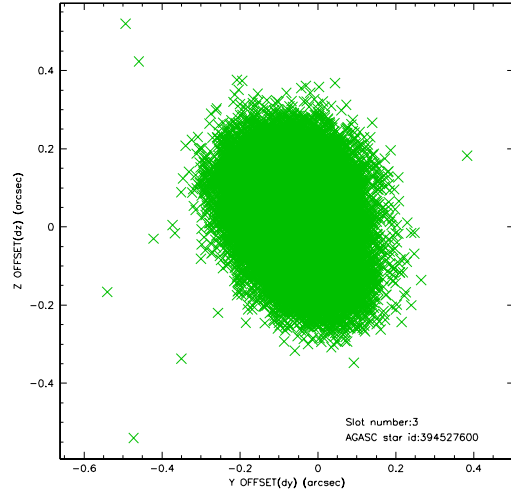


Slot Statistics

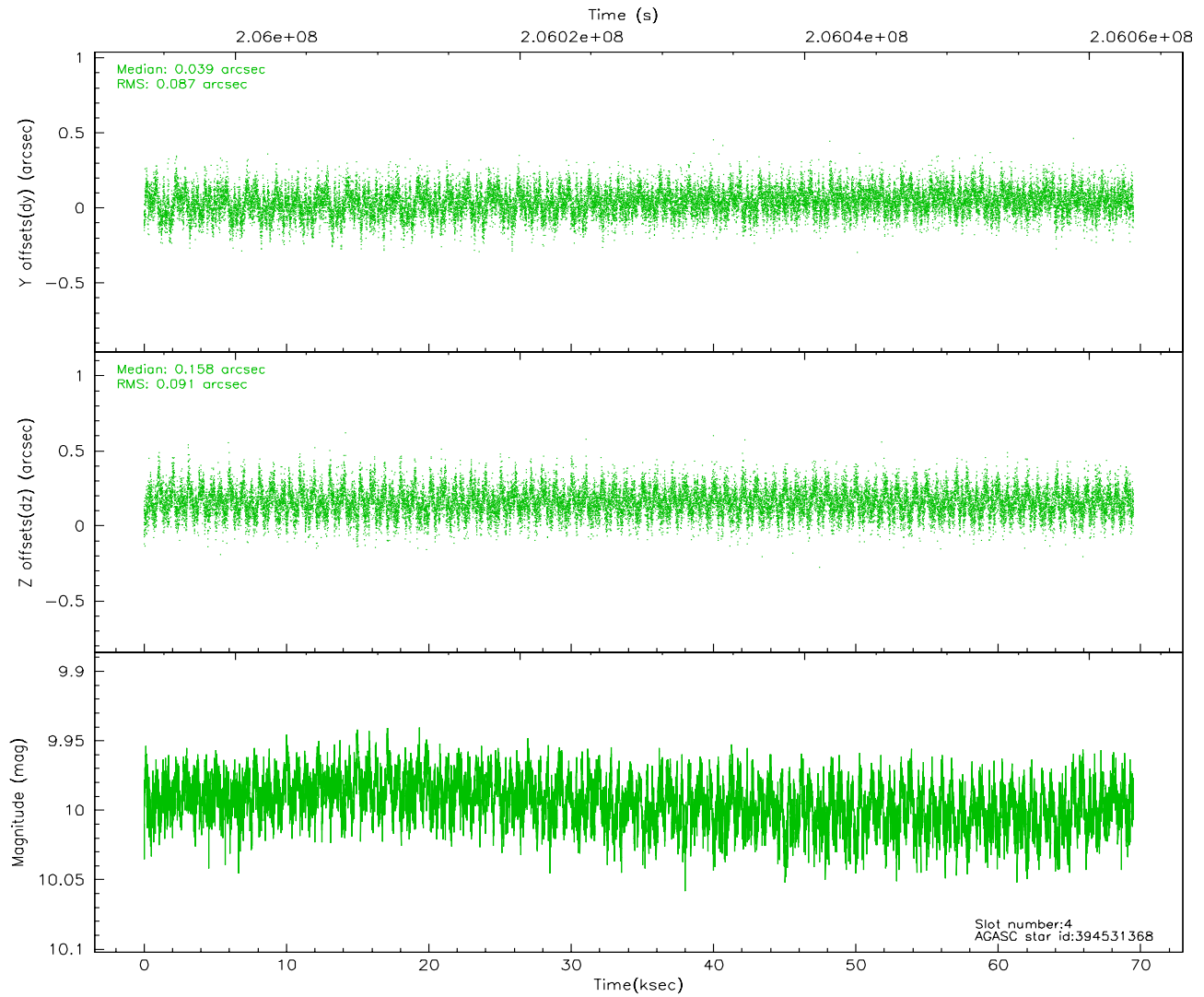
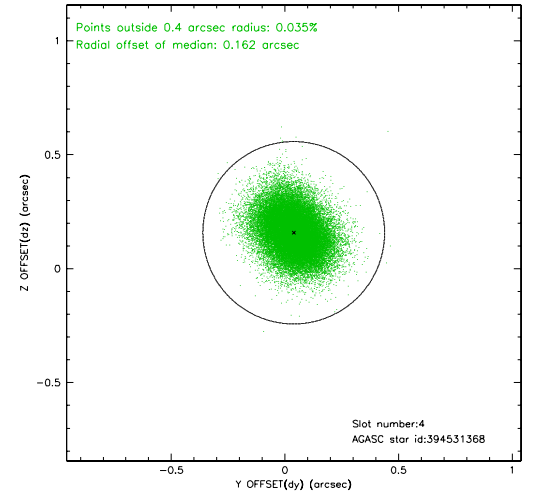
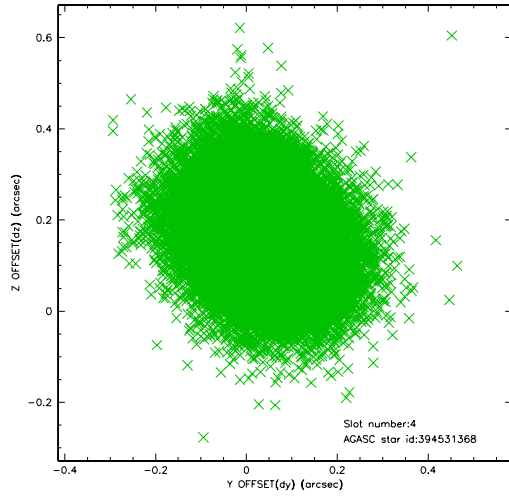
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	16952	0.091	0.134	0.008	0.016	0.000000	0.000000	937.83	-1964.36
1	FID	ACIS-S-5	7.23	16953	-0.081	0.126	0.009	0.018	0.000000	0.000000	-1811.27	-66.65
2	FID	ACIS-S-6	7.43	16953	-0.032	-0.249	0.008	0.014	0.000000	0.000000	403.46	576.76
3	GUIDE	394527600	9.97	33664	-0.057	0.044	0.142	0.231	166.166468	38.538638	-953.49	197.82
4	GUIDE	394531368	9.99	33875	0.039	0.158	0.134	0.219	165.794613	38.837127	-2085.34	-784.54
5	GUIDE	394543960	9.79	33871	0.134	0.142	0.118	0.190	165.802757	37.787371	1688.74	-982.78
6	GUIDE	394546712	6.59	33904	-0.079	0.162	0.058	0.089	166.451462	38.394357	-392.11	972.23
7	GUIDE	394546720	6.41	33905	-0.039	-0.493	0.075	0.119	166.130115	38.241361	109.53	36.32

2.4 Star Slots

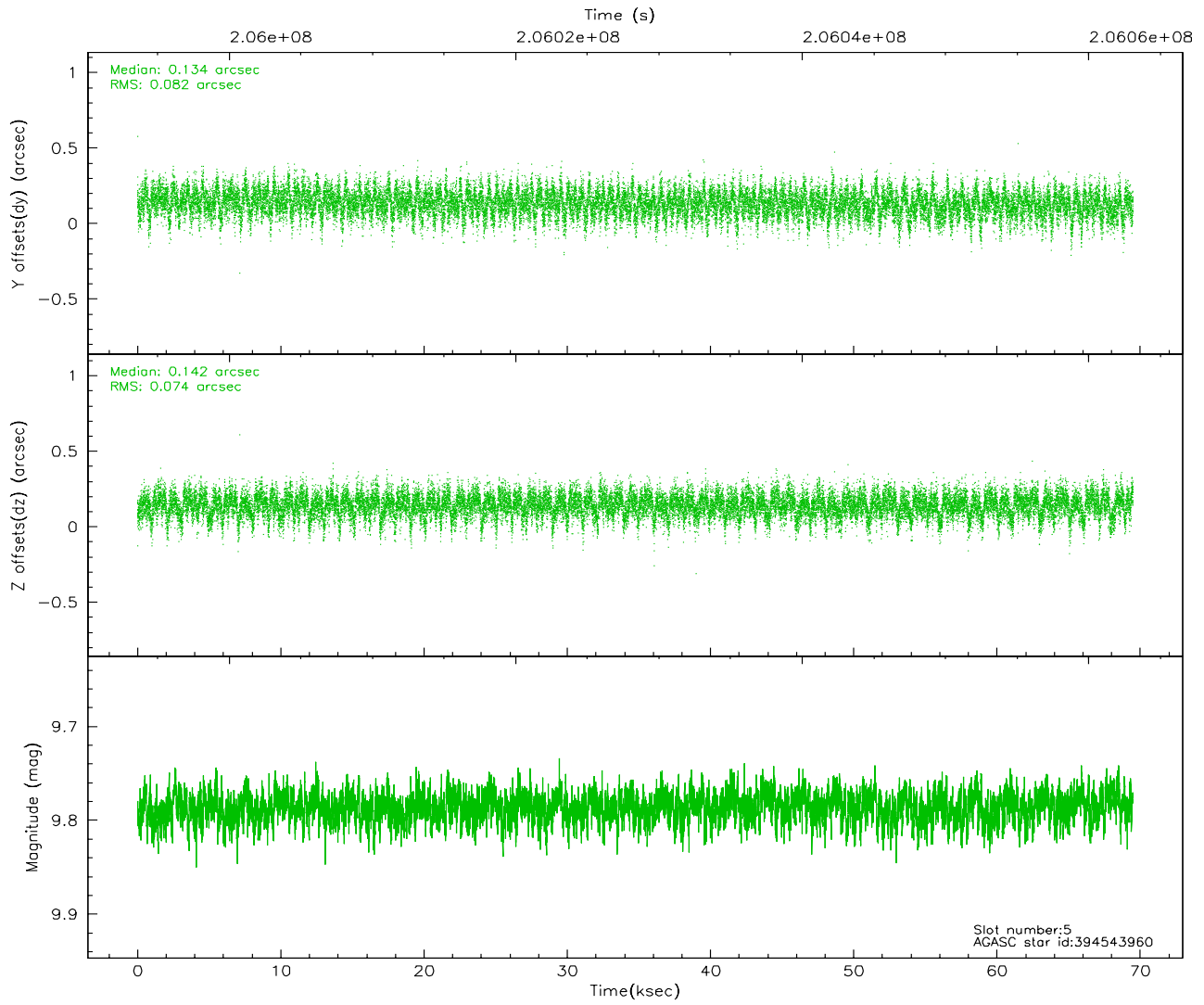
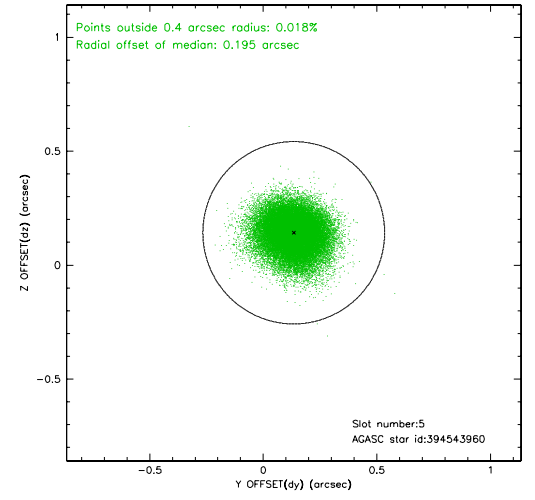
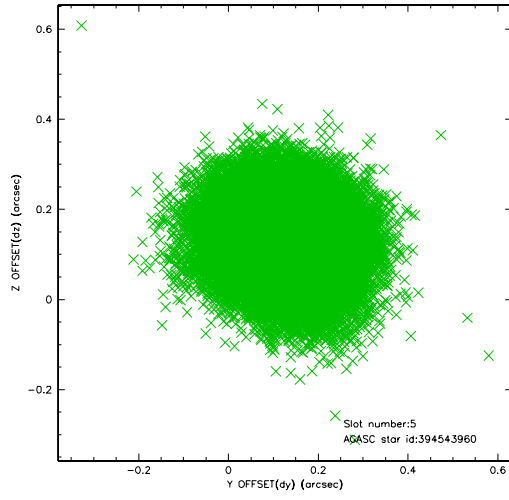
2.4.1 Slot 3



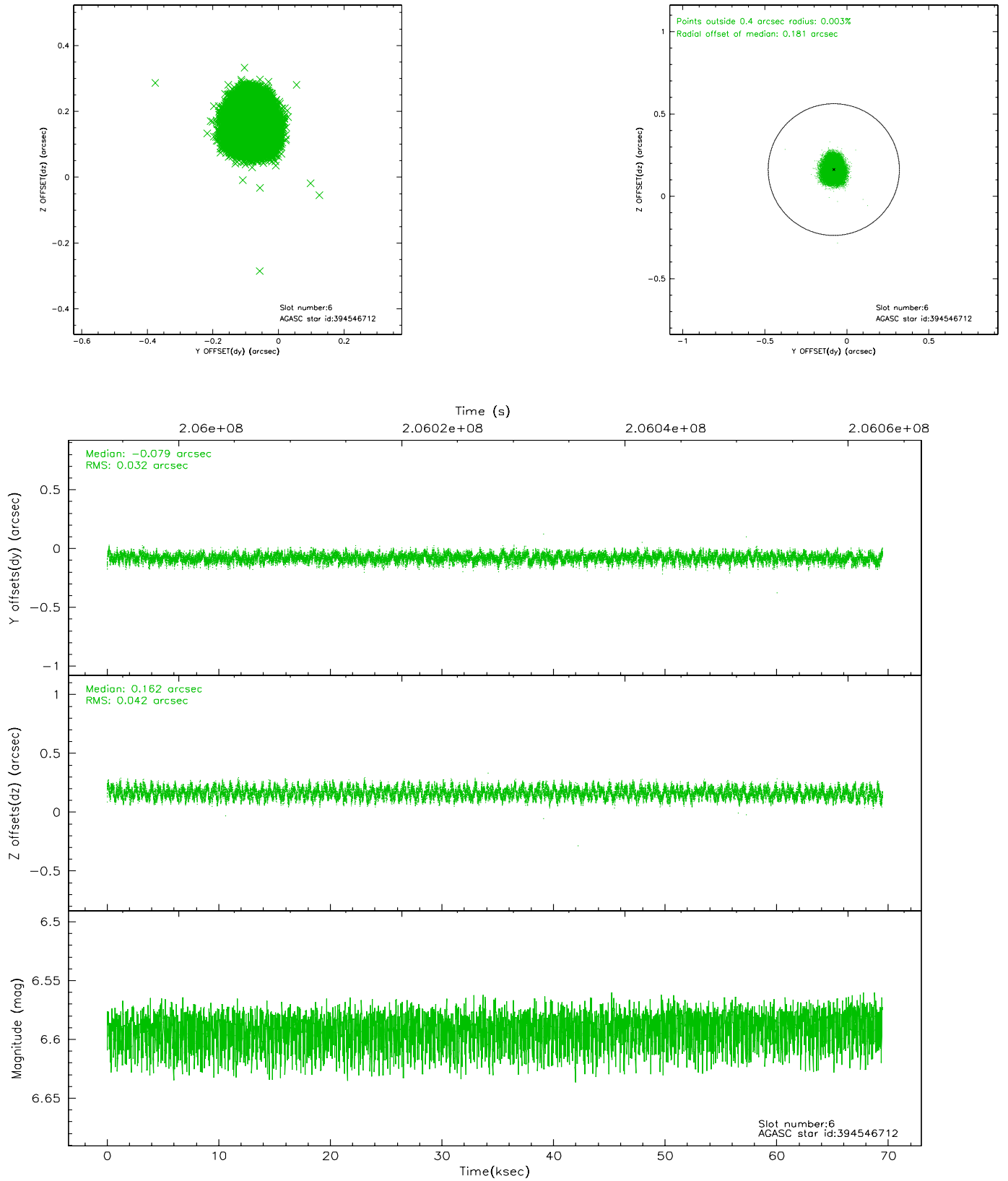
2.4.2 Slot 4



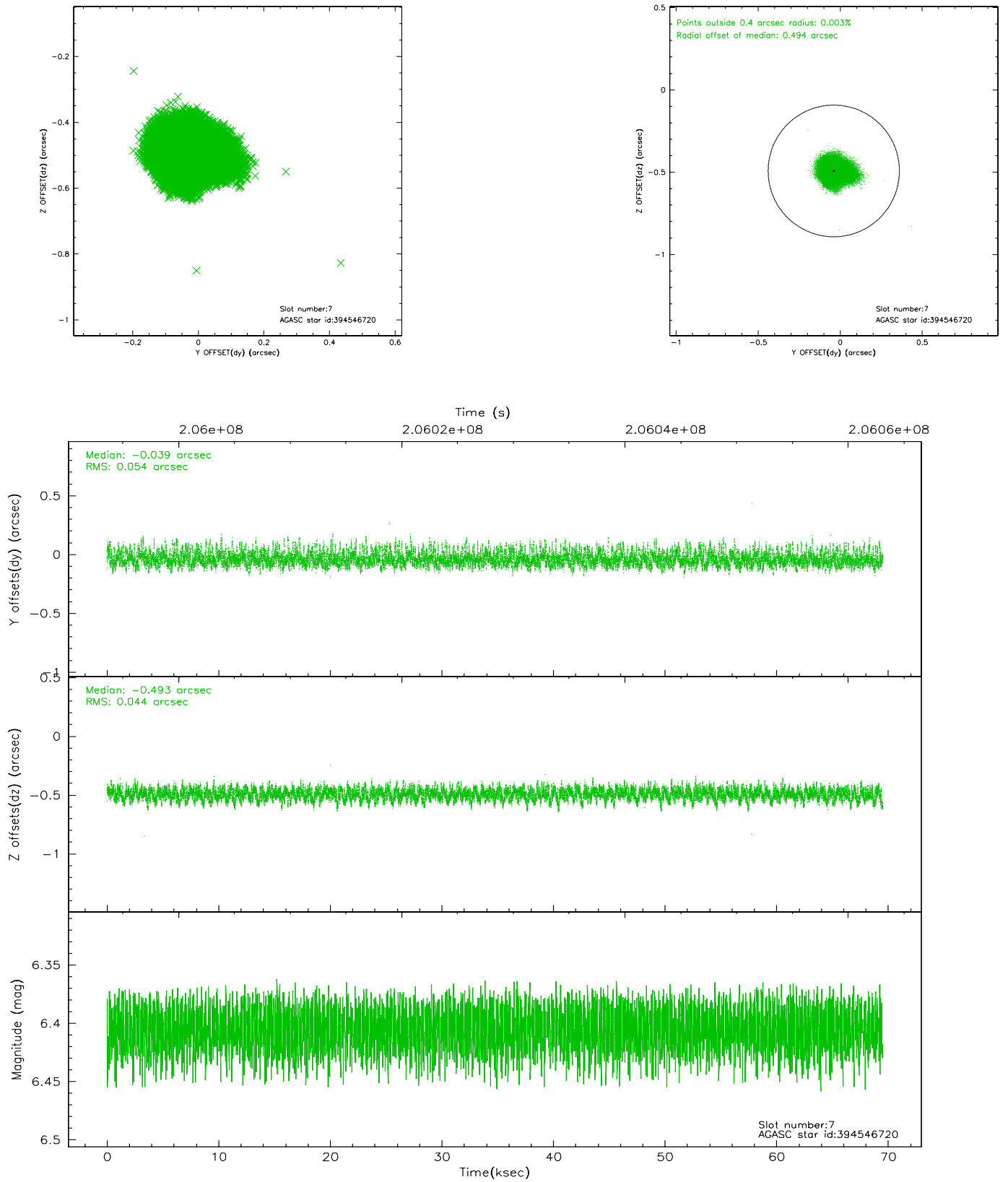
2.4.3 Slot 5



2.4.4 Slot 6

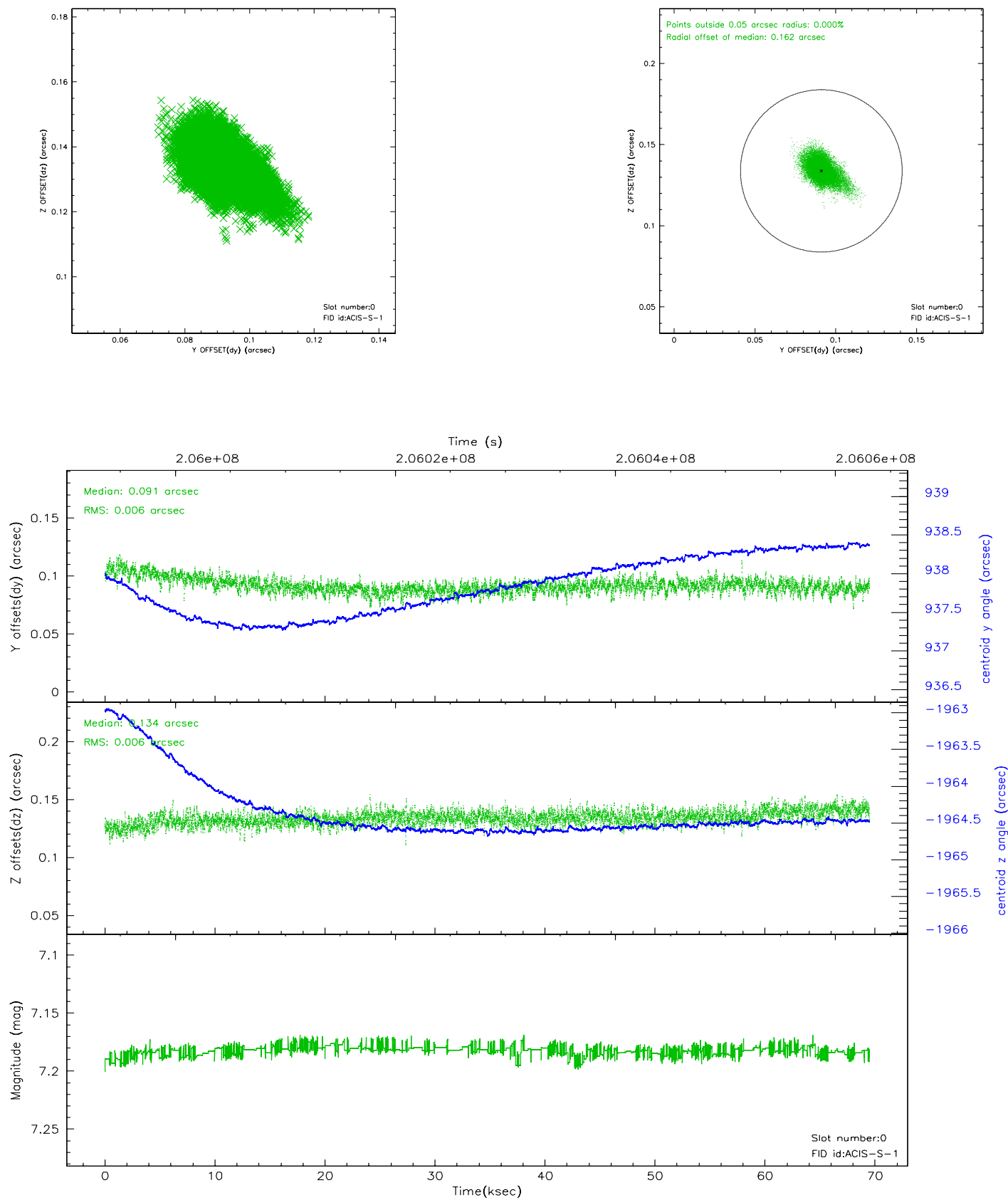


2.4.5 Slot 7

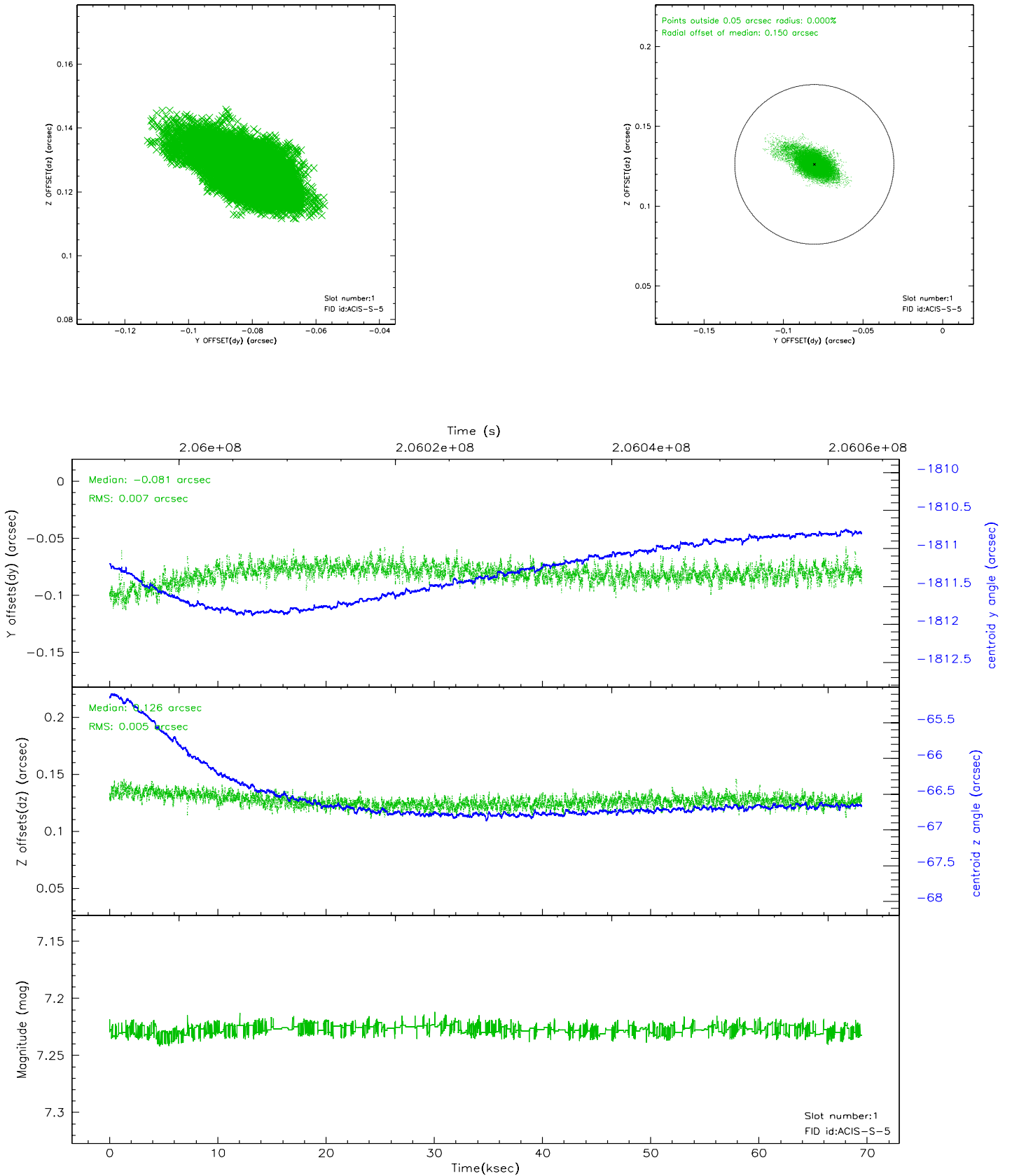


2.5 FID Slots

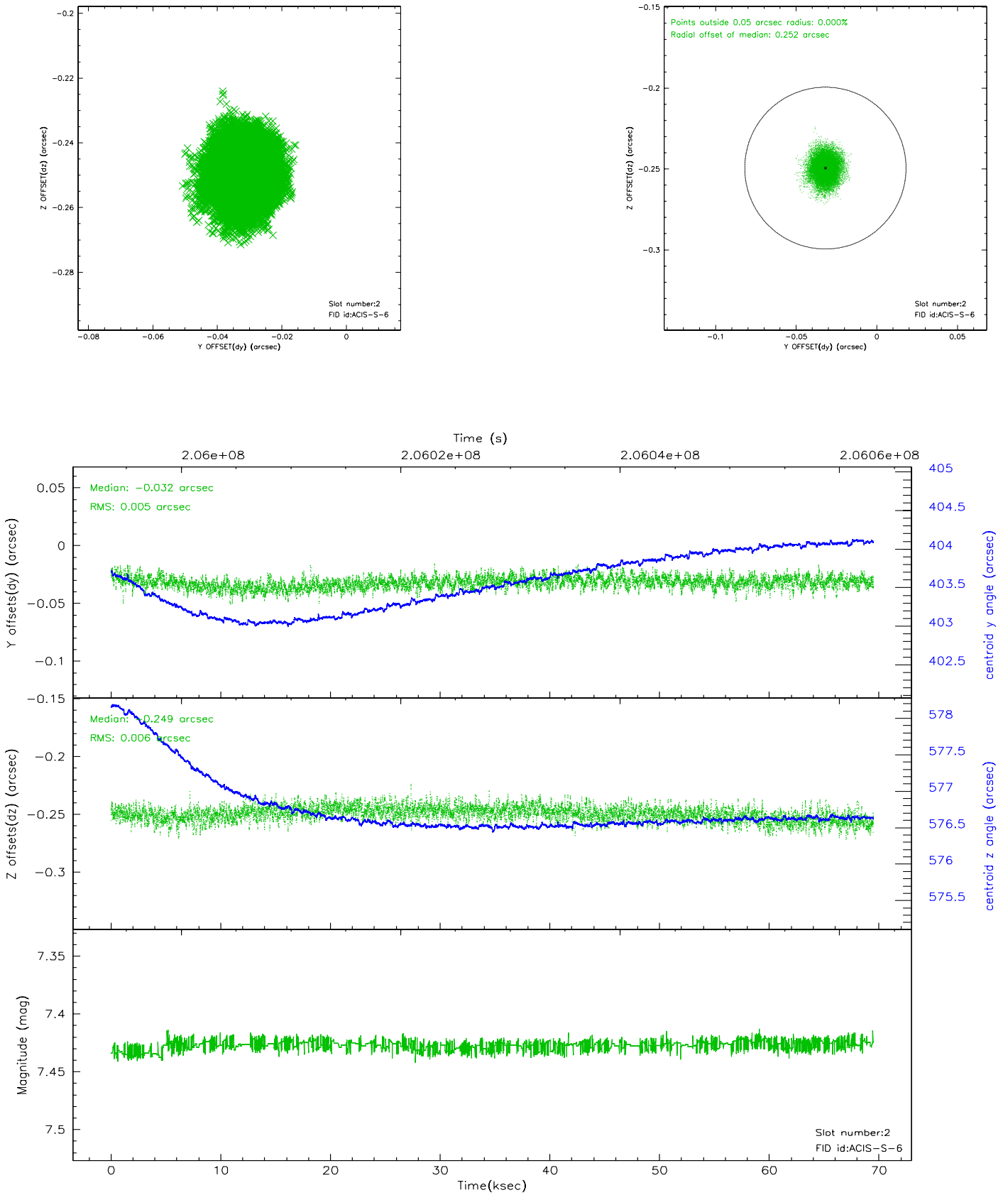
2.5.1 Slot 0



2.5.2 Slot 1

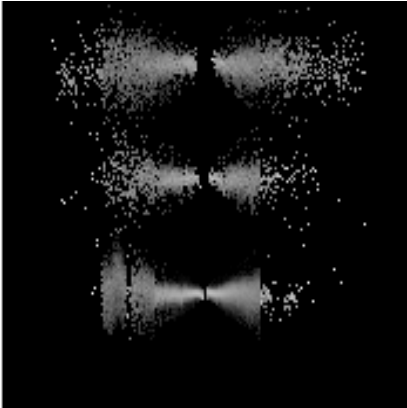


2.5.3 Slot 2

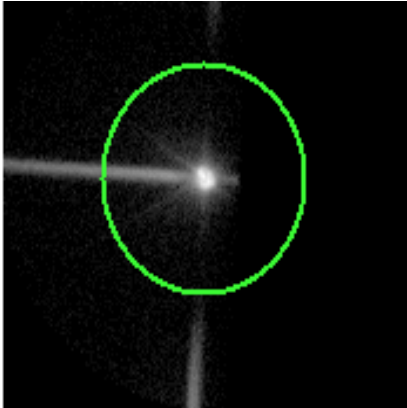


3 Gratings

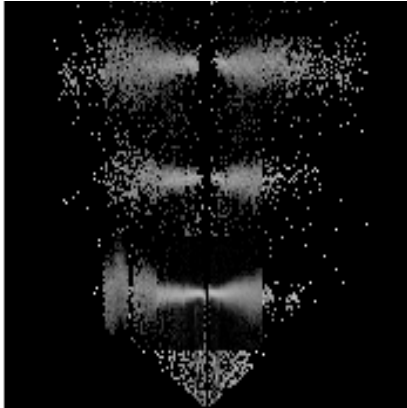
3.1 LETG Arm



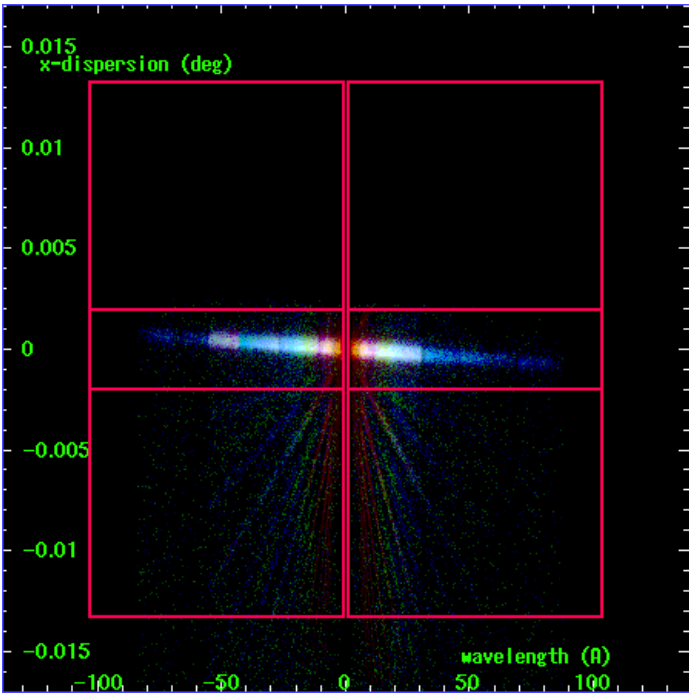
LETG Order Sort 123



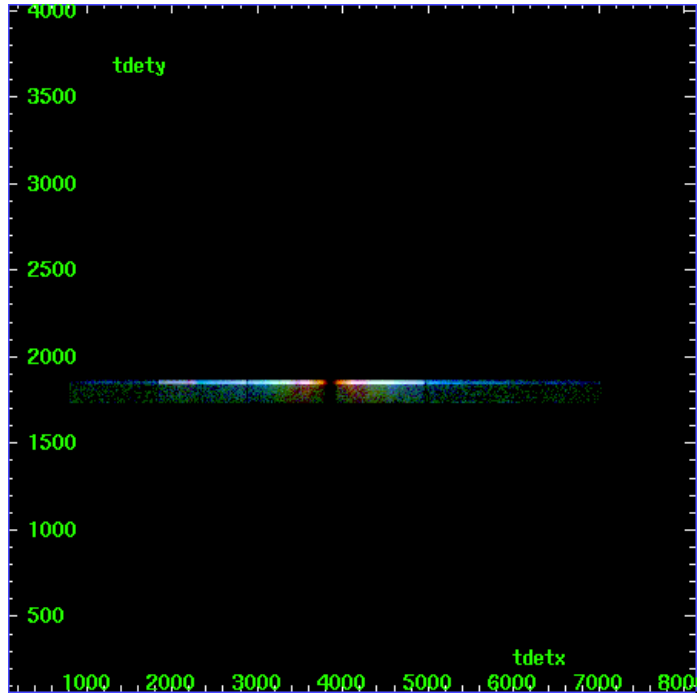
LETG Zero Order



LETG Order Sort ALL

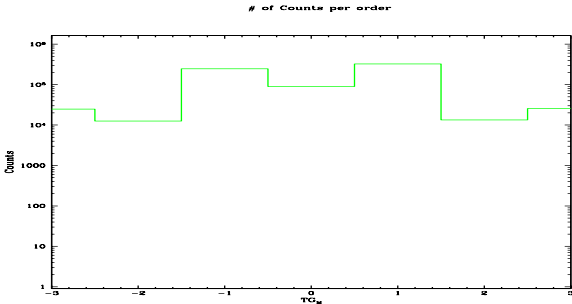


Spot Image LETG

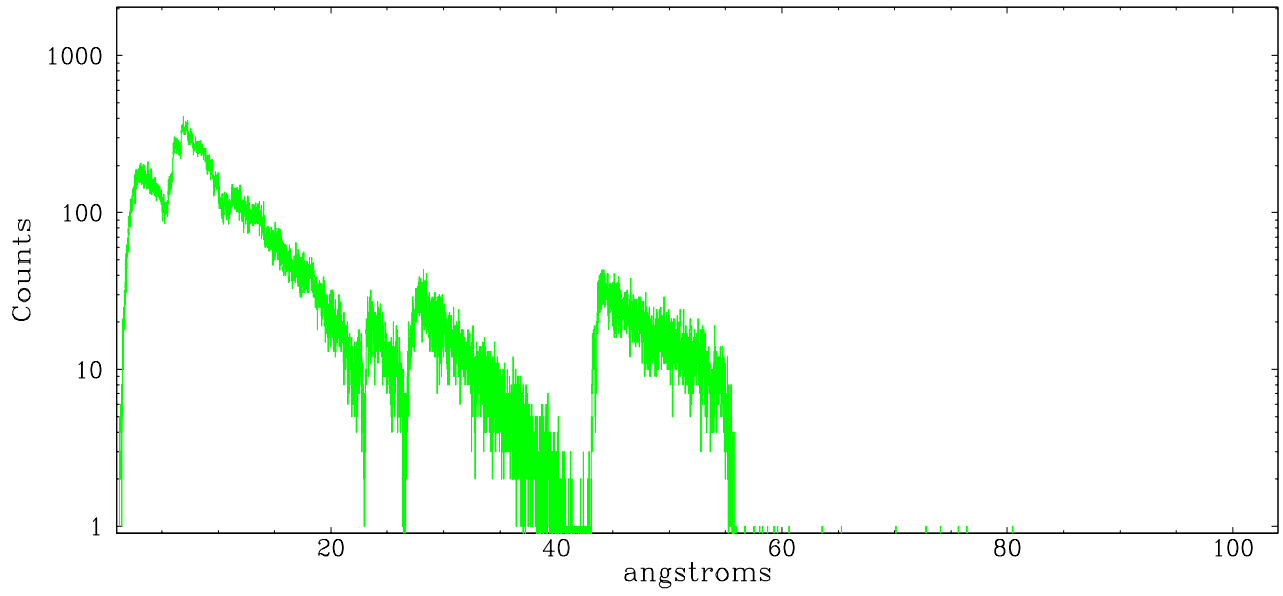


Full Detector LETG

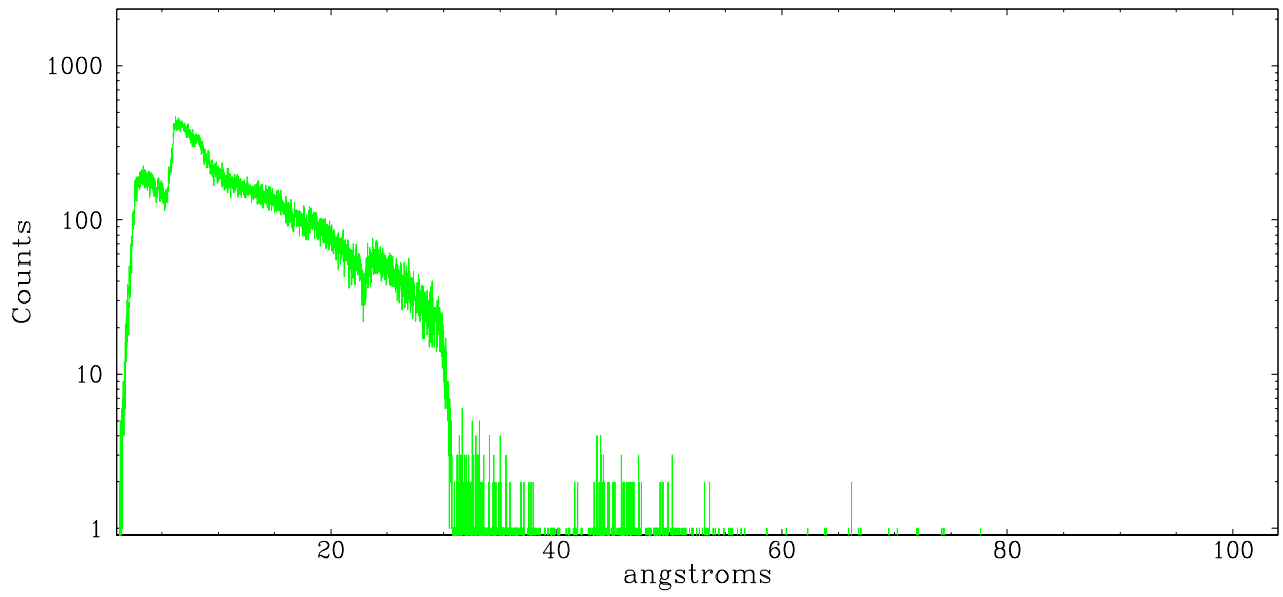
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	24771	12605	245520	89467	325783	13414	25703



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	69.504

A.2 Comments

Window constraint met.

Target placed at the very edge of the subarray, so that the dispersec spectrum runs along the edge of the subarray.