

V&V Reference Report

L2 ASCDS Version : 7.6.10

Observation 3172 - L2 Version 002
Chandra X-Ray Center

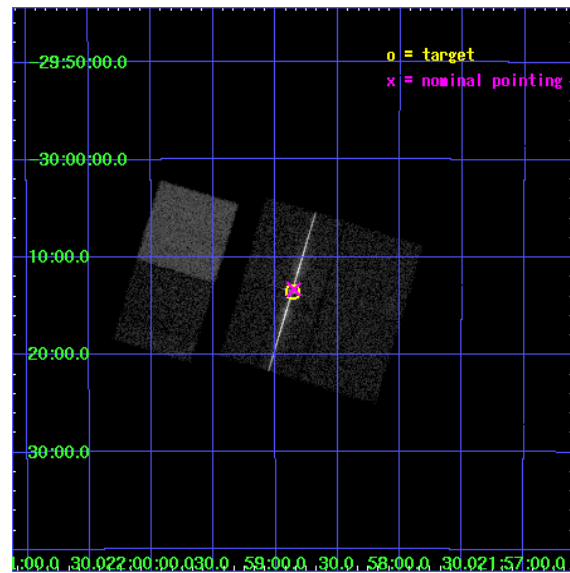
L2 Processing Date : Mar 13 2007

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1 Front

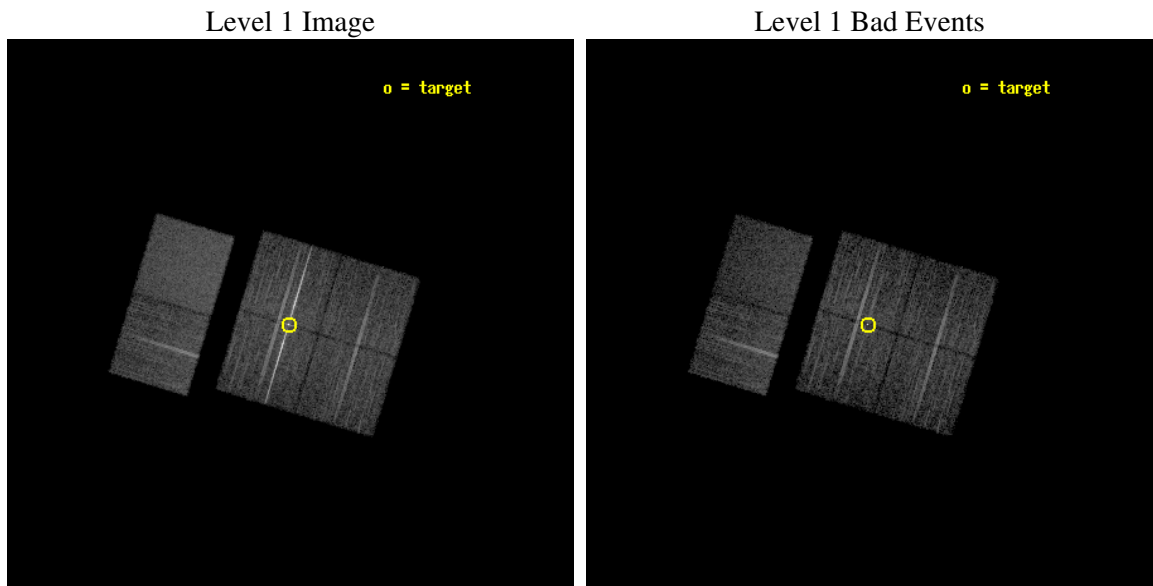
seq_num	790066
obs_id	3172
title	AO3 LETG/ACIS-I CALIBRATION OBSERVATIONS OF PKS2155-304
observer	Dr. CXC Calibration
object	PKS2155-304
dtcycle	0
cycle	P
ra_targ	329.716667
dec_targ	-30.225556
ra_nom	329.7132913197
dec_nom	-30.222284186137
roll_nom	286.87351692609
revision	4
ontime	7753.6000072211
livetime	7655.4192552723
ontime0	7753.6000072211
ontime1	7750.3590469509
ontime2	7750.3590170592
ontime3	7753.6000072211
ontime6	7753.6000072211
ontime7	7753.6000072211
l2events	81328



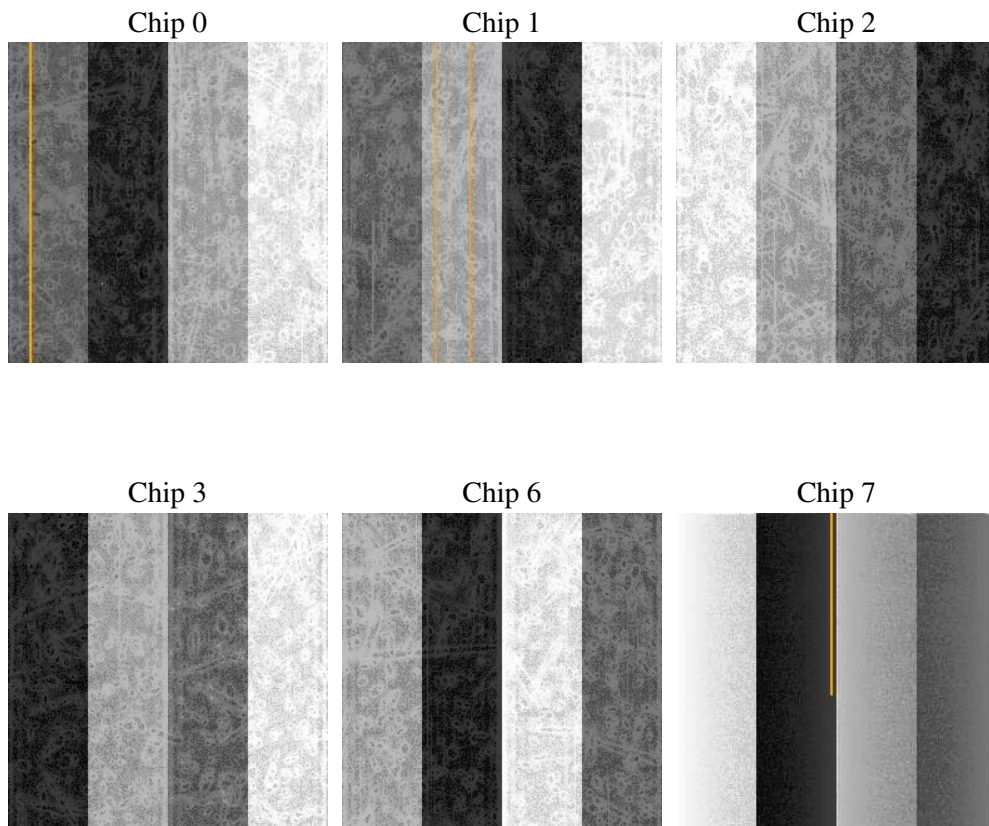
2 OBI

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	2007-01-20T09:58:52
revision	2

sched_exp_time	8000.000000
ontime	7753.6000072211
ontime0	7753.6000072211
ontime1	7750.3590469509
ontime2	7750.3590170592
ontime3	7753.6000072211
ontime6	7753.6000072211
ontime7	7753.6000072211
l1events	341544

2.1.4 Events

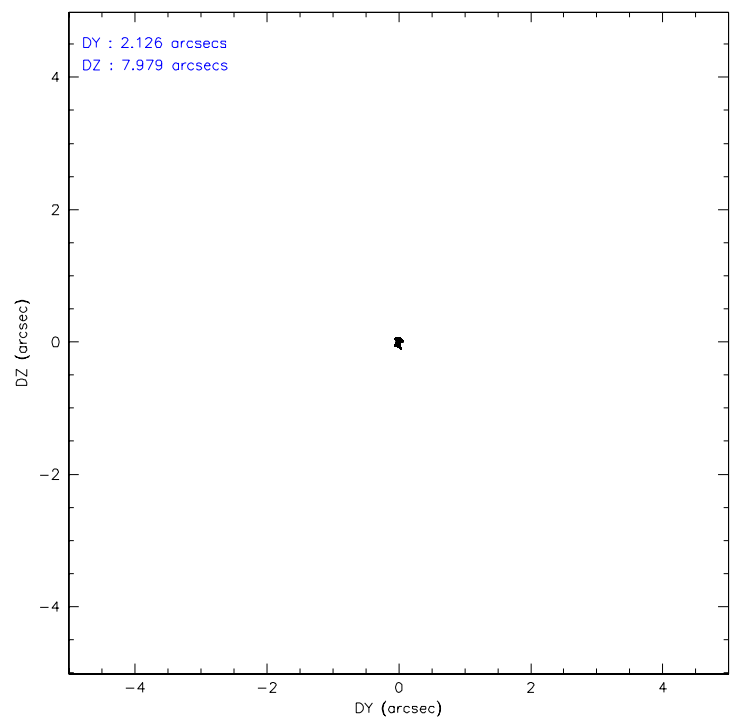
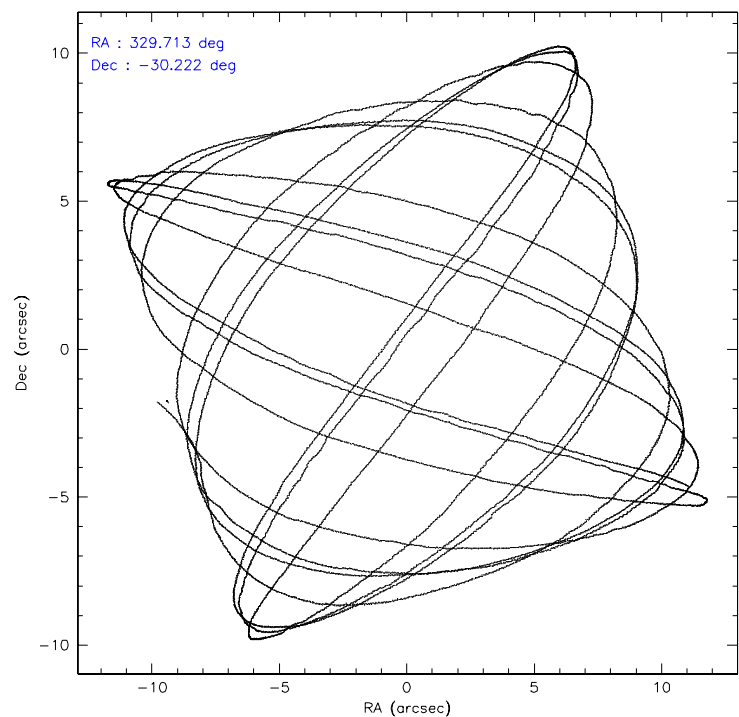
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	45808	46061	65156	68540	52447	63532
rejected events	39774	39820	43595	46739	46480	37333
rejected %	86%	86%	66%	68%	88%	58%

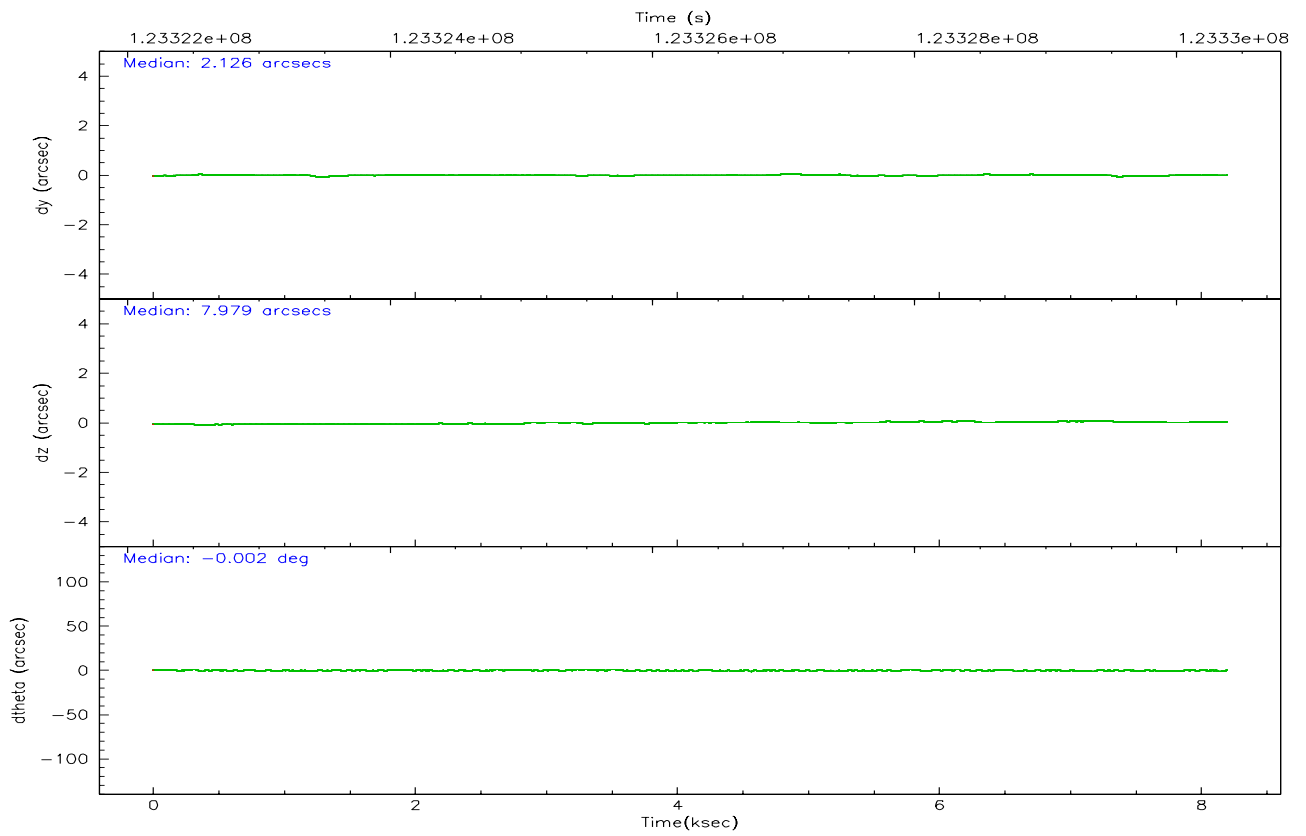
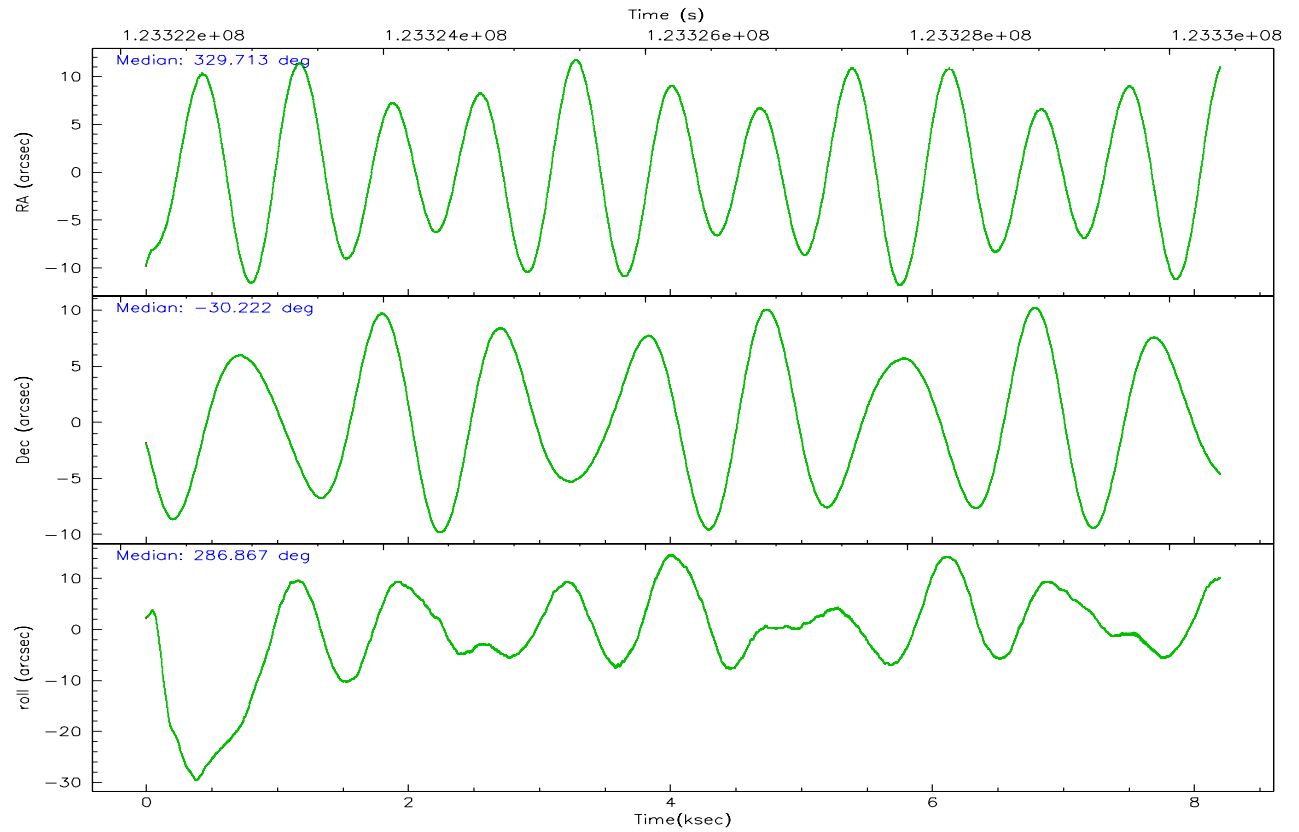
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	2491	2513	15753	15711	2351	2291
	5%	5%	24%	22%	4%	3%
grade 1 events	15	16	173	215	25	72
	0%	0%	0%	0%	0%	0%
grade 2 events	1338	1337	2680	2683	1262	5265
	2%	2%	4%	3%	2%	8%
grade 3 events	595	604	889	984	590	2368
	1%	1%	1%	1%	1%	3%
grade 4 events	581	583	914	939	543	2381
	1%	1%	1%	1%	1%	3%
grade 5 events	1724	1839	1864	2159	2213	6067
	3%	3%	2%	3%	4%	9%
grade 6 events	1034	1207	1343	1499	1226	13911
	2%	2%	2%	2%	2%	21%
grade 7 events	38030	37962	41540	44350	44237	31177
	83%	82%	63%	64%	84%	49%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	LETG	LETG	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	329.690125	329.7132913196996	Subarray requested	NONE	NONE
Pointing Dec	-30.203543	-30.2222841861368	Alternating exposures requested	N	N
Pointing Roll	286.653175	286.8735169260942	Primary exposure time	0.000000	3.2
Window start time	120960064.184000	120960064.184000			
Window stop time	126144064.184000	126144064.184000			
SIM focus pos (mm)	-0.782348	-0.7809083437167272			
SIM defocus (mm)	0	0.001439871863259334			
SIM translation stage pos (mm)	-226.272463	-226.2682626179875			
SIM translation stage offset (mm)	-7.32	-7.32419038494217			
Observation start time	123322388.184000	123322012.24531			
Observation start date	2001-11-28T08:12:04	2001-11-28T08:06:52			
Observation end time	123330388.184000	123331122.44568			
Observation end date	2001-11-28T10:25:24	2001-11-28T10:38:42			
Read mode	TIMED	TIMED			

2.3 Aspect



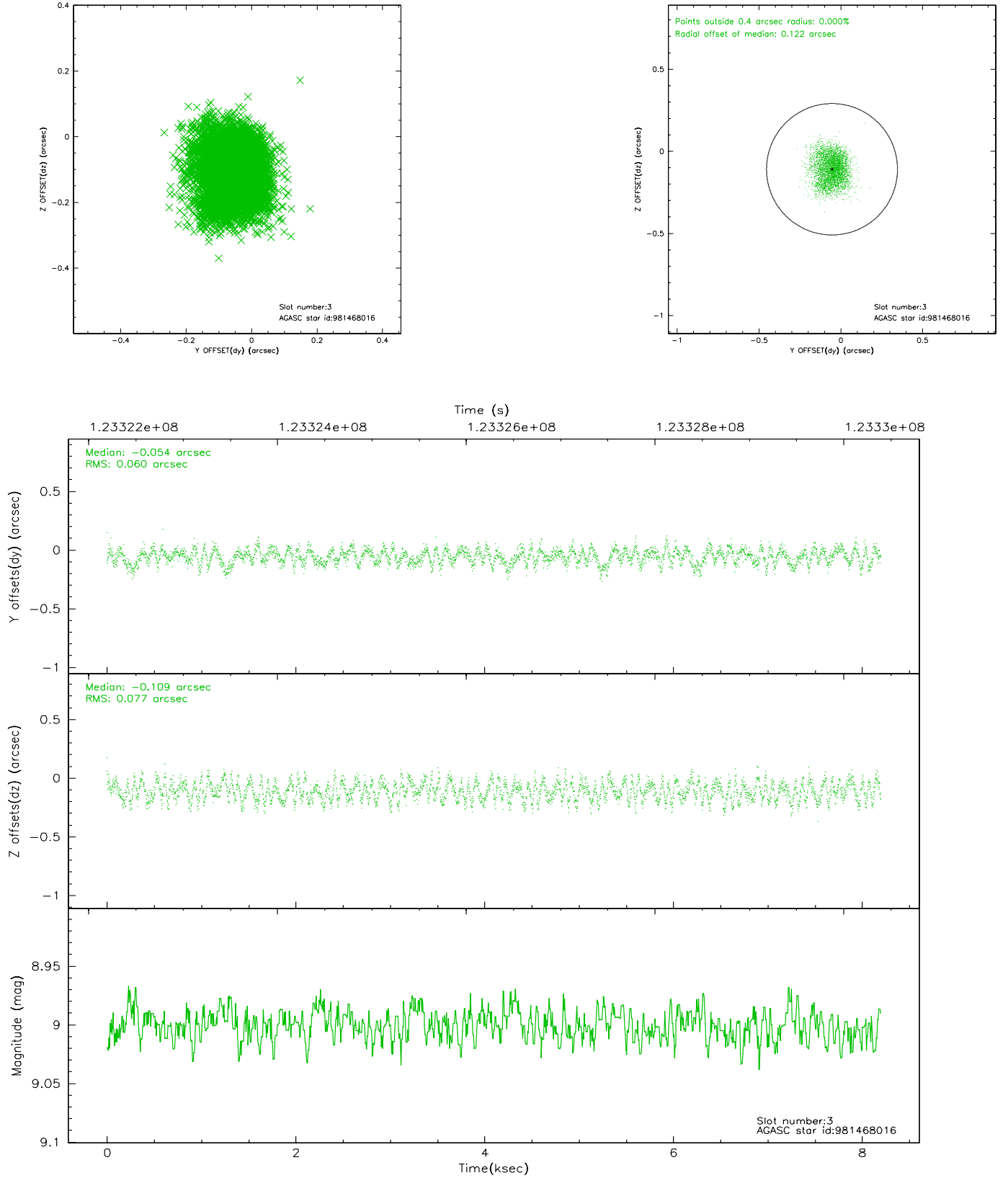


Slot Statistics

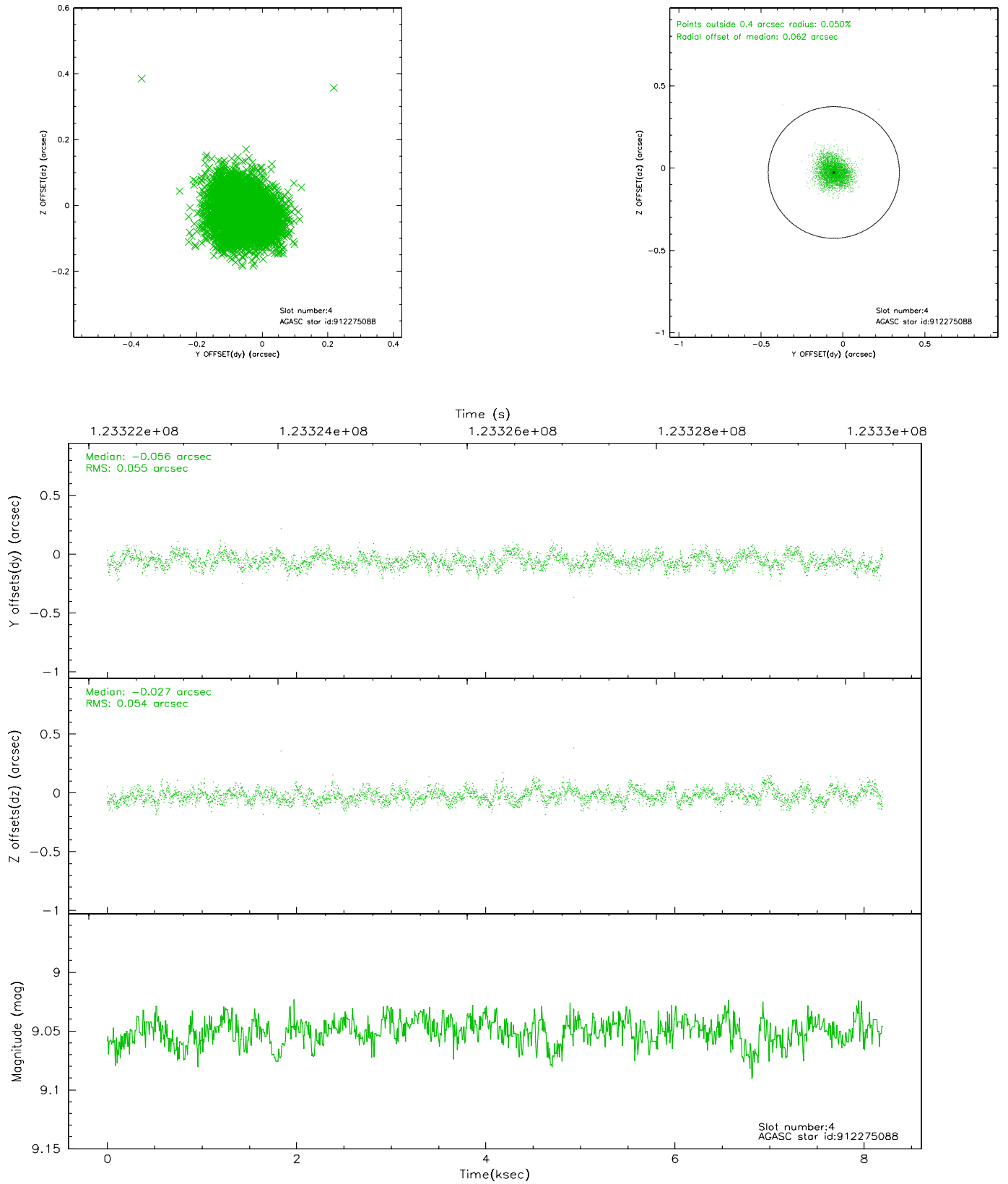
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.23	2001	0.021	0.032	0.006	0.010	0.000000	0.000000	937.58	-981.71
1	FID	ACIS-I-5	7.23	2001	-0.109	0.062	0.006	0.010	0.000000	0.000000	-1810.28	915.39
2	FID	ACIS-I-6	7.26	2001	-0.003	-0.023	0.006	0.010	0.000000	0.000000	402.36	1560.59
3	GUIDE	981468016	9.00	4000	-0.054	-0.109	0.107	0.163	328.842457	-30.034984	-1327.96	-2359.38
4	GUIDE	912275088	9.05	4000	-0.056	-0.027	0.082	0.130	329.619228	-29.738698	-1666.21	267.26
5	GUIDE	981478152	9.41	3991	-0.001	0.149	0.075	0.125	329.415589	-30.057192	-748.37	-667.91
6	GUIDE	981468128	9.37	3997	0.051	-0.022	0.101	0.168	329.756350	-30.158334	-96.01	244.77
7	GUIDE	981469488	9.60	3997	0.061	0.008	0.100	0.160	329.261199	-30.045155	-925.86	-1117.11

2.4 Star Slots

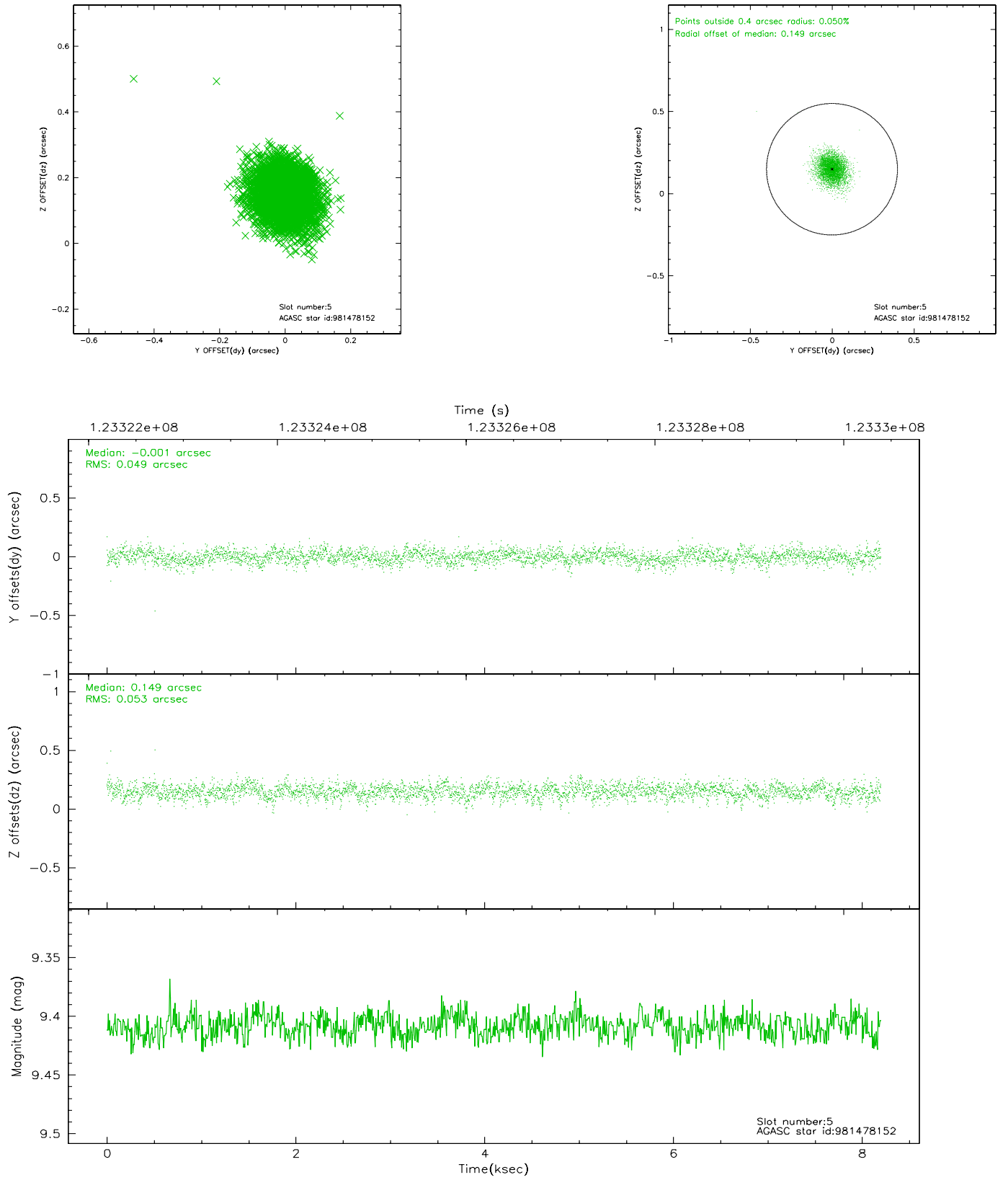
2.4.1 Slot 3



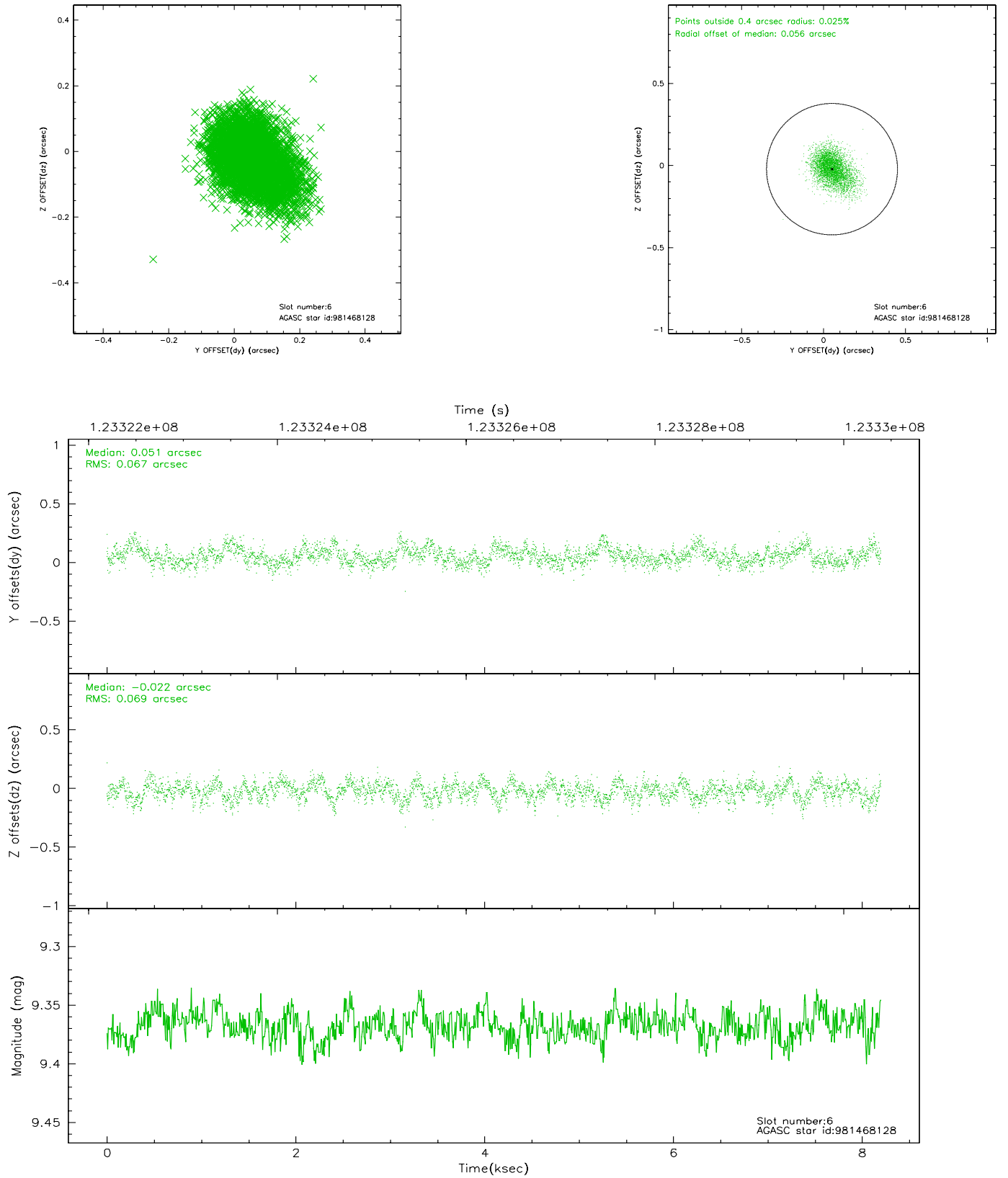
2.4.2 Slot 4



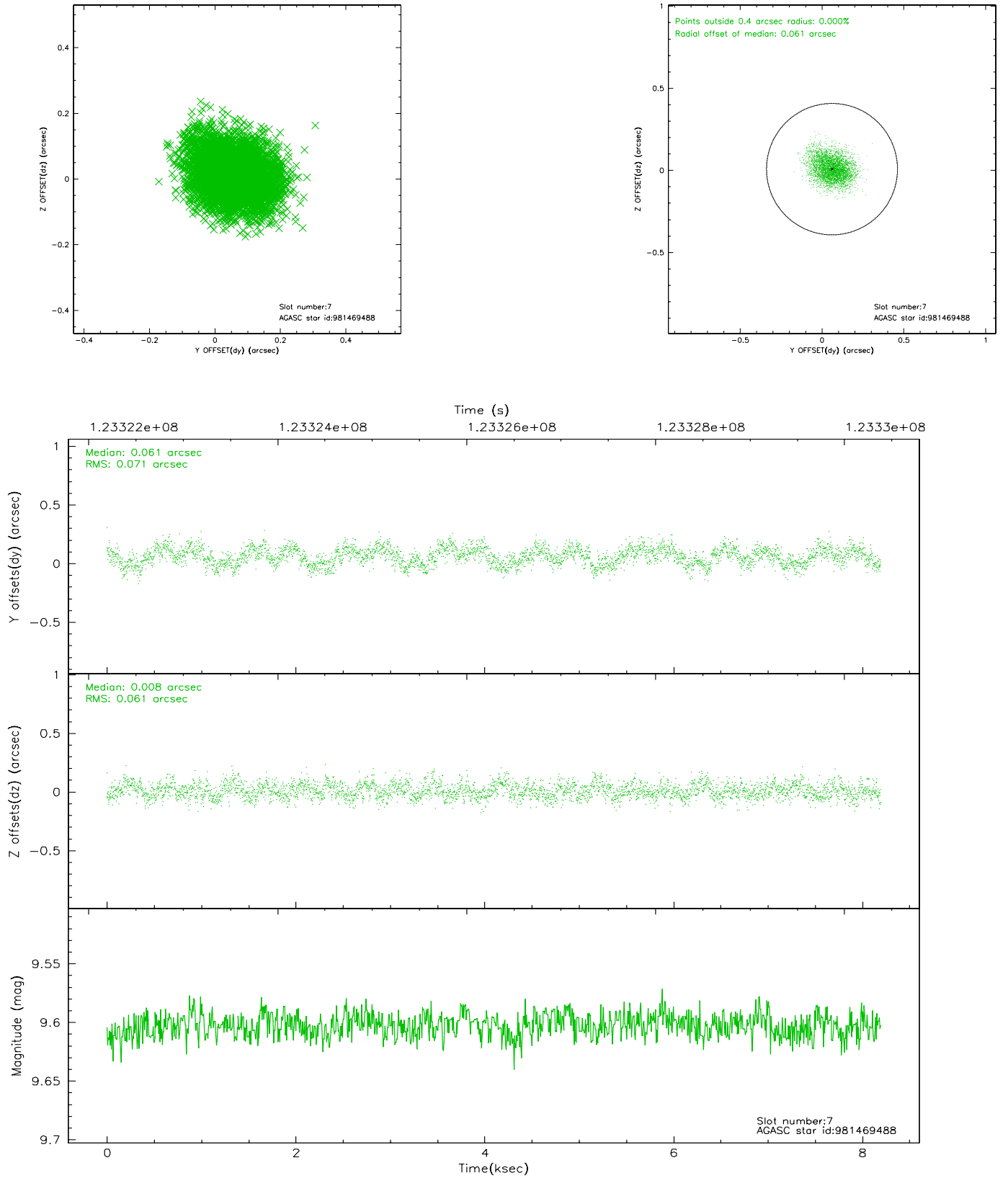
2.4.3 Slot 5



2.4.4 Slot 6

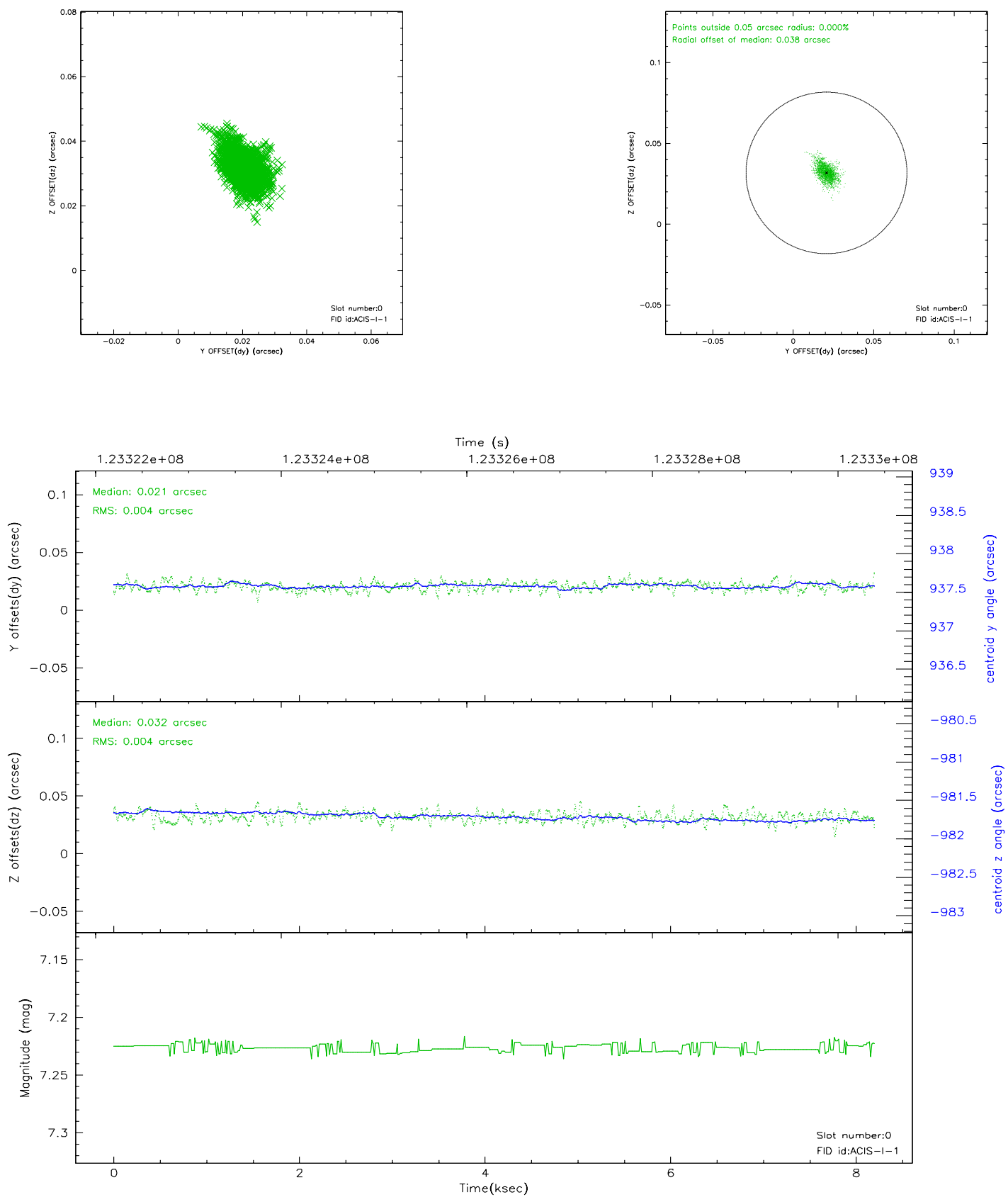


2.4.5 Slot 7

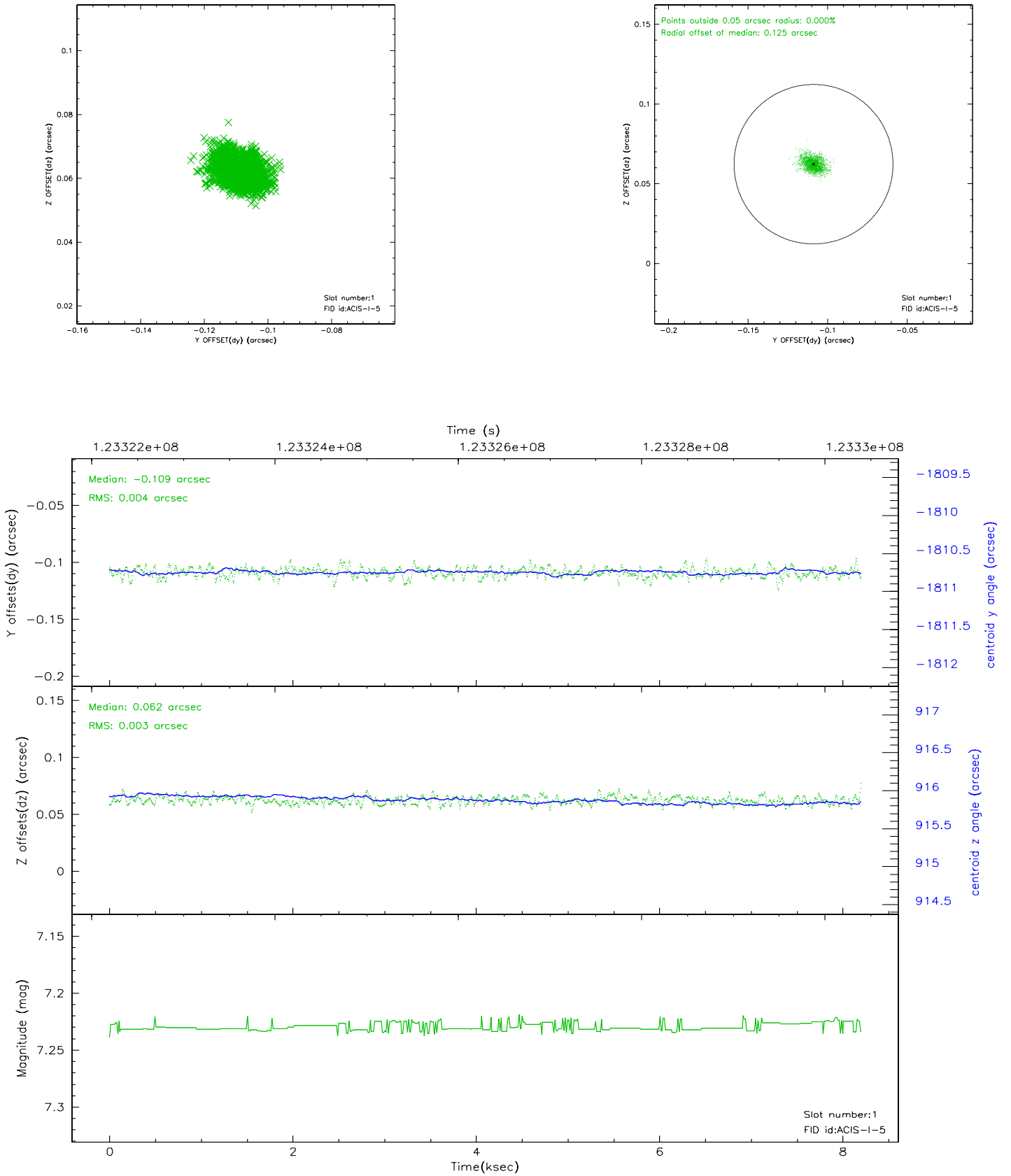


2.5 FID Slots

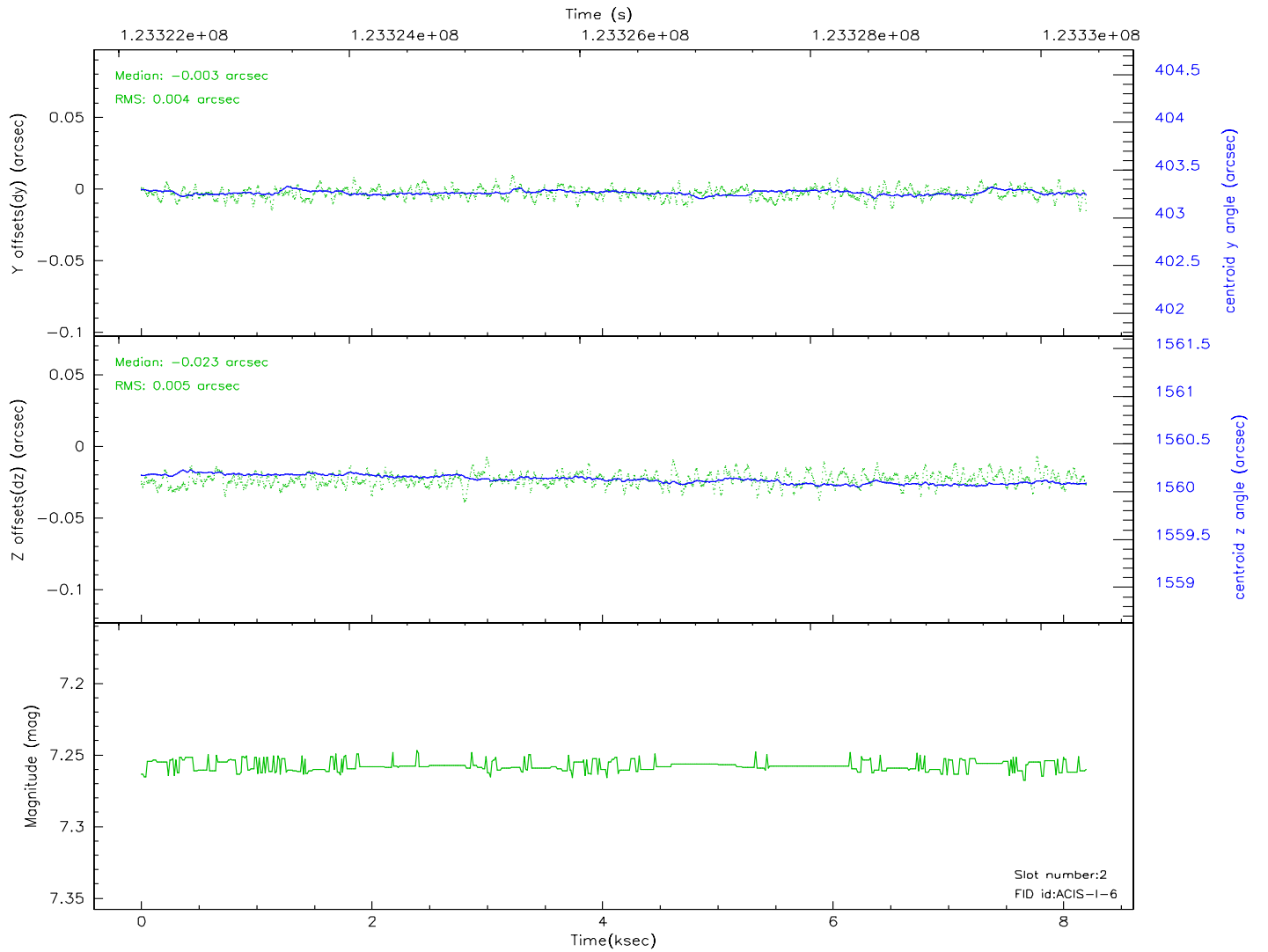
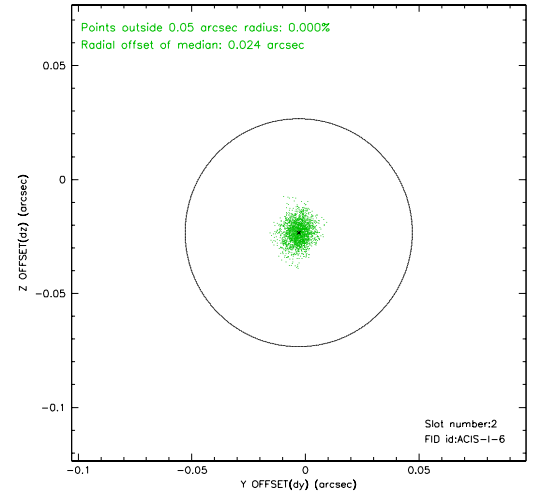
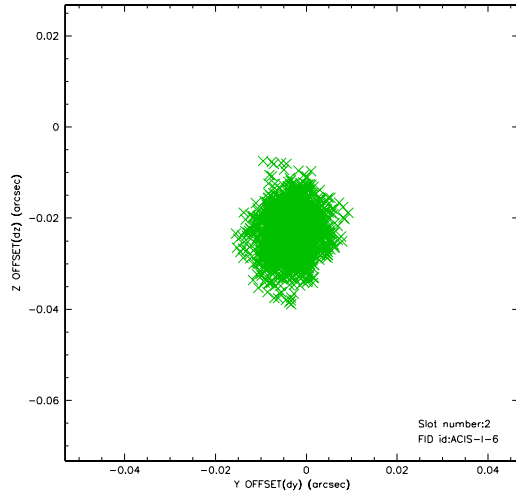
2.5.1 Slot 0



2.5.2 Slot 1

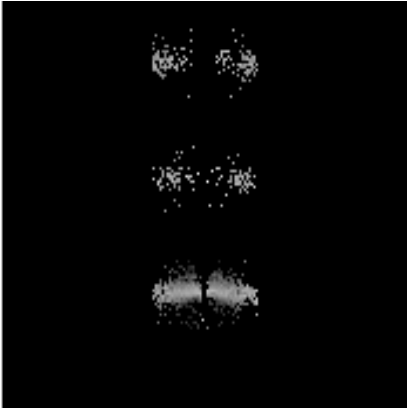


2.5.3 Slot 2

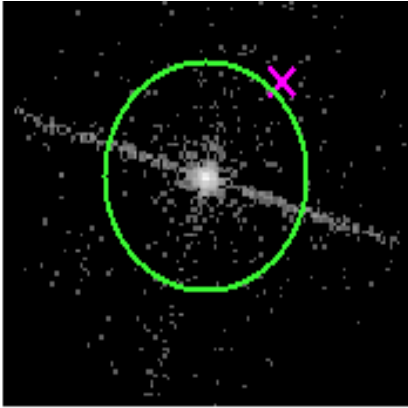


3 Gratings

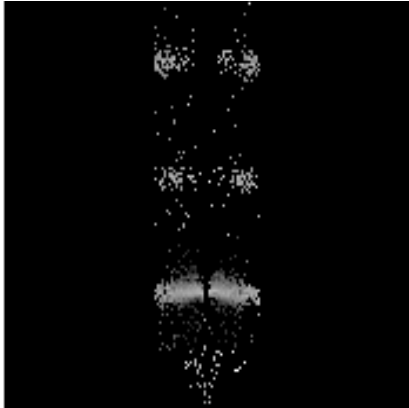
3.1 LETG Arm



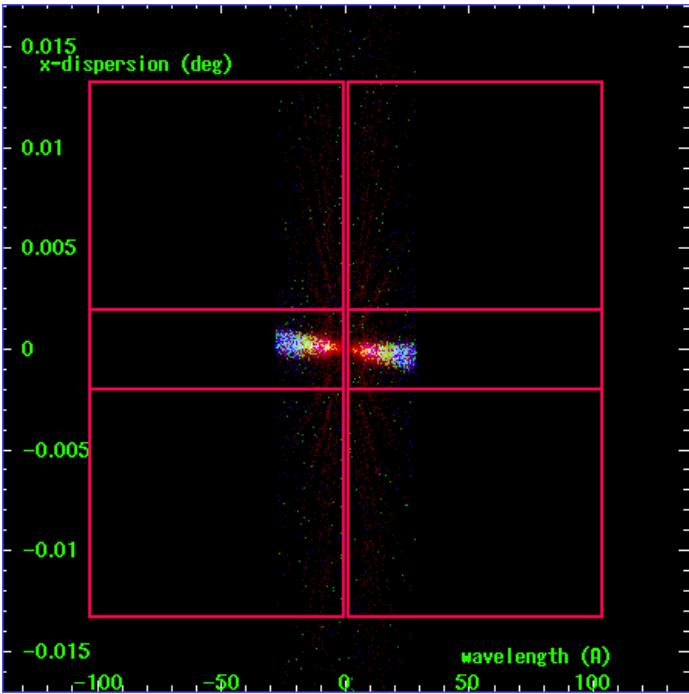
LETG Order Sort 123



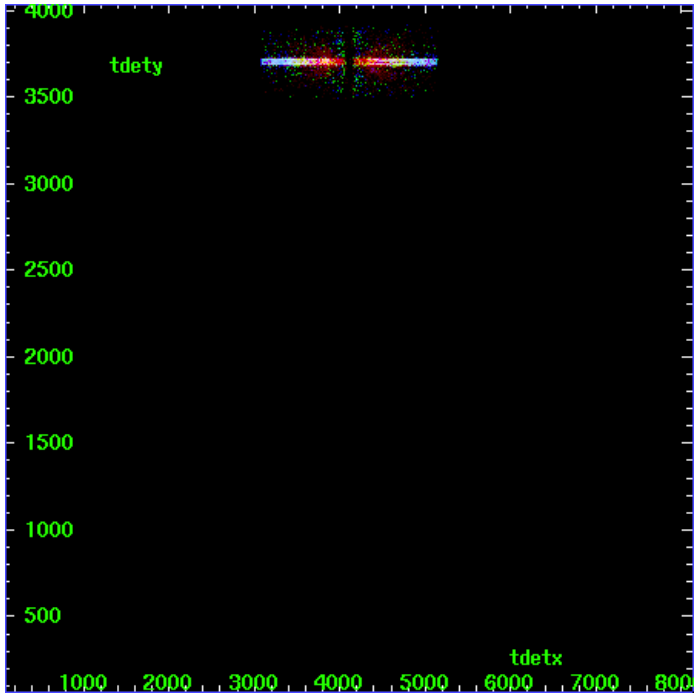
LETG Zero Order



LETG Order Sort ALL

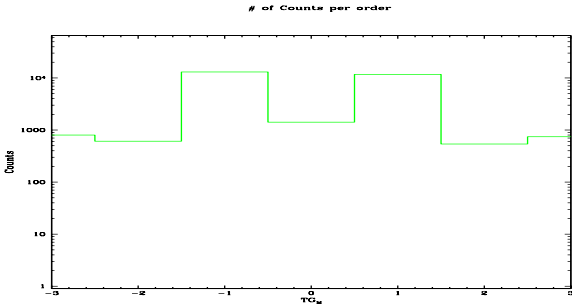


Spot Image LETG

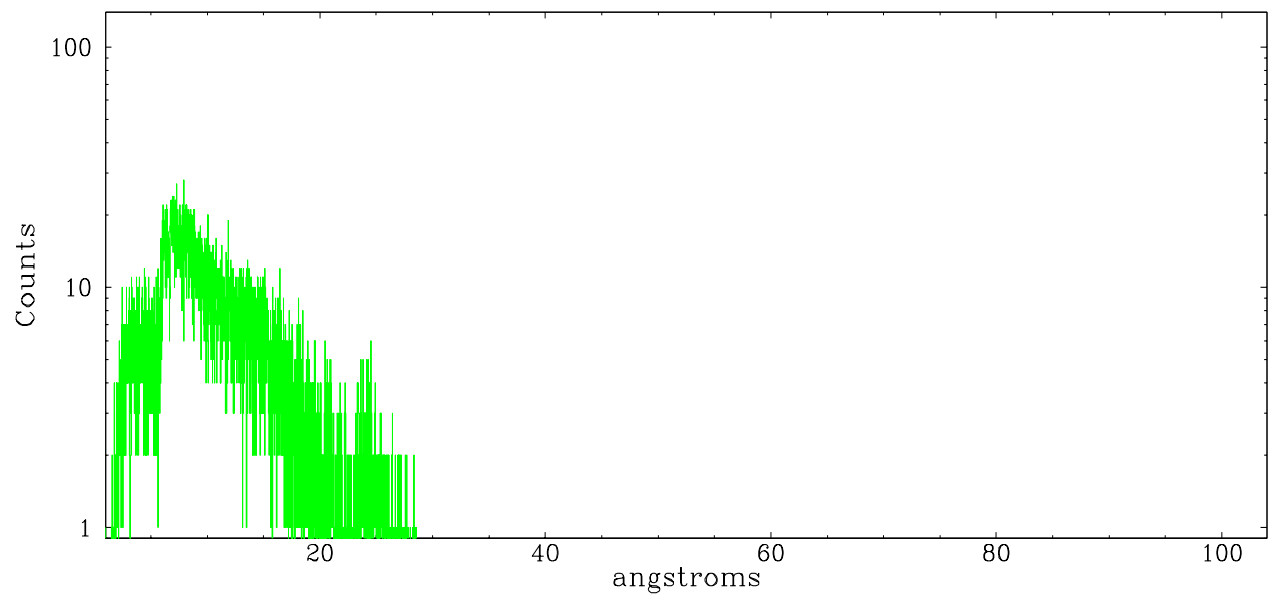


Full Detector LETG

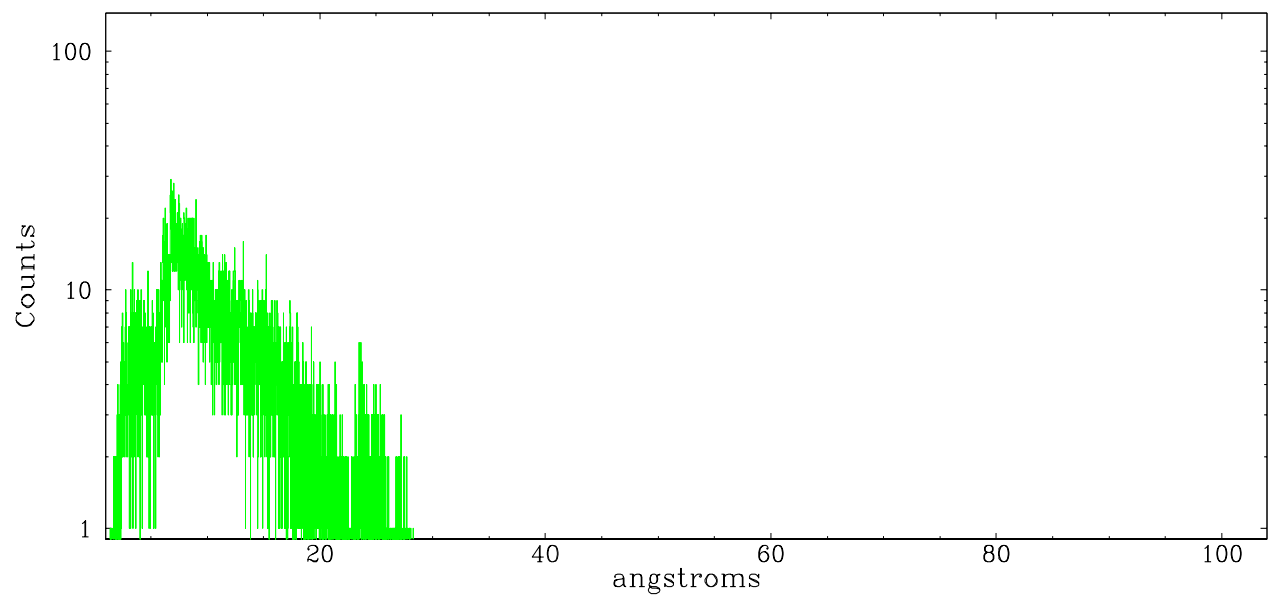
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	804	609	13026	1419	11727	539	744



leg order -1



leg order +1



A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.03.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	7.756

A.2 Comments

Non-standard grating/detector combination requires custom parameters.
To resolve order, tg_resolve_events used osip=NONE and a constant
order-sorting boundary.

Zeroth order image of the source falls between two CCD chips during most
of the observation, and only occasionally dithers onto the chip. This
placement of the zeroth order has no affect on the dispersed spectrum.