

V&V Reference Report

L2 ASCDS Version : 7.6.9

Observation 2411 - L2 Version 001
Chandra X-Ray Center

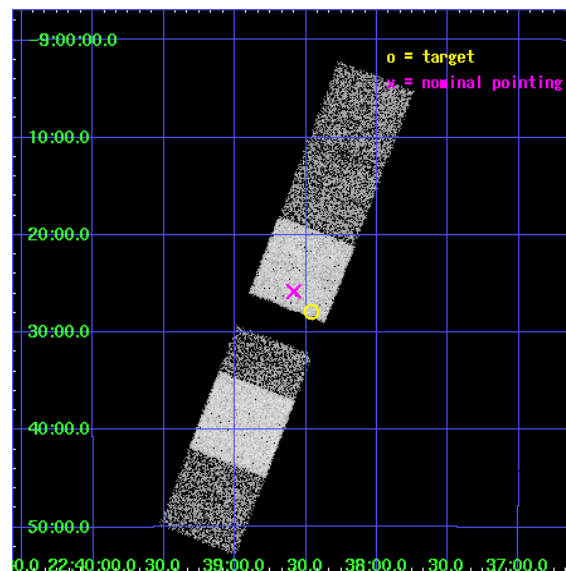
L2 Processing Date : Nov 2 2006

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1 Front

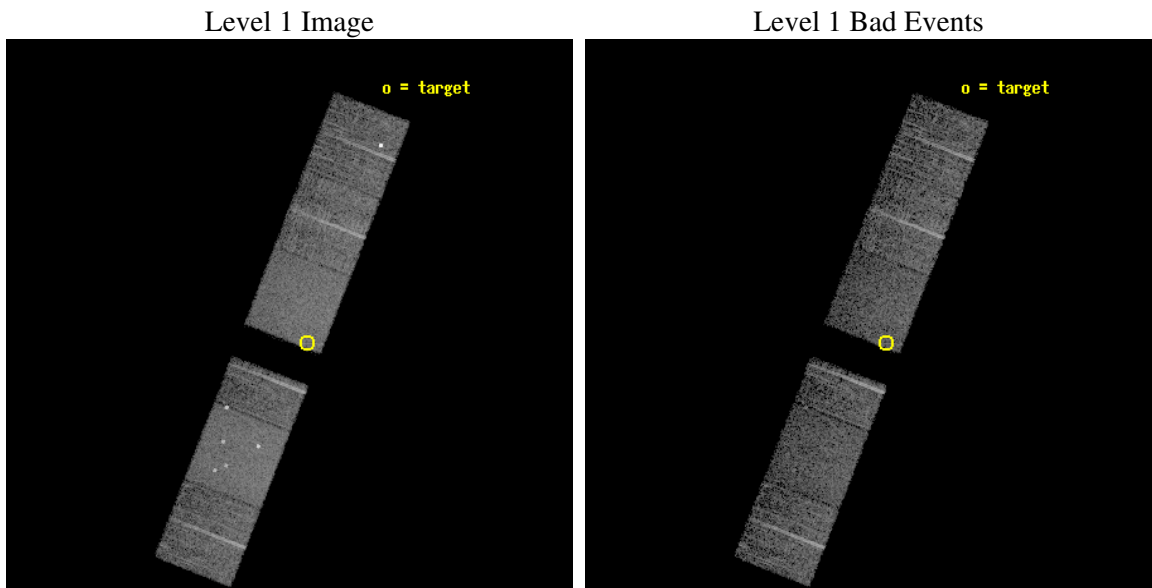
seq_num	100026
obs_id	2411
title	VENUS AND MARS: THE CLOSEST PLANETARY ANALOGUES TO COMETS
observer	Dr. Konrad Dennerl
object	VENUS
dtcycle	0
cycle	P
ra_targ	339.61476
dec_targ	-9.46425
ra_nom	339.6462146585
dec_nom	-9.4300735617655
roll_nom	291.37073579696
revision	2
ontime	5939.1590253562
livetime	5863.9538176449
ontime4	5942.4000055343
ontime5	5939.159045279
ontime6	5939.159045279
ontime7	5939.1590253562
ontime8	5942.4000055343
ontime9	5942.4000055343
l2events	54517



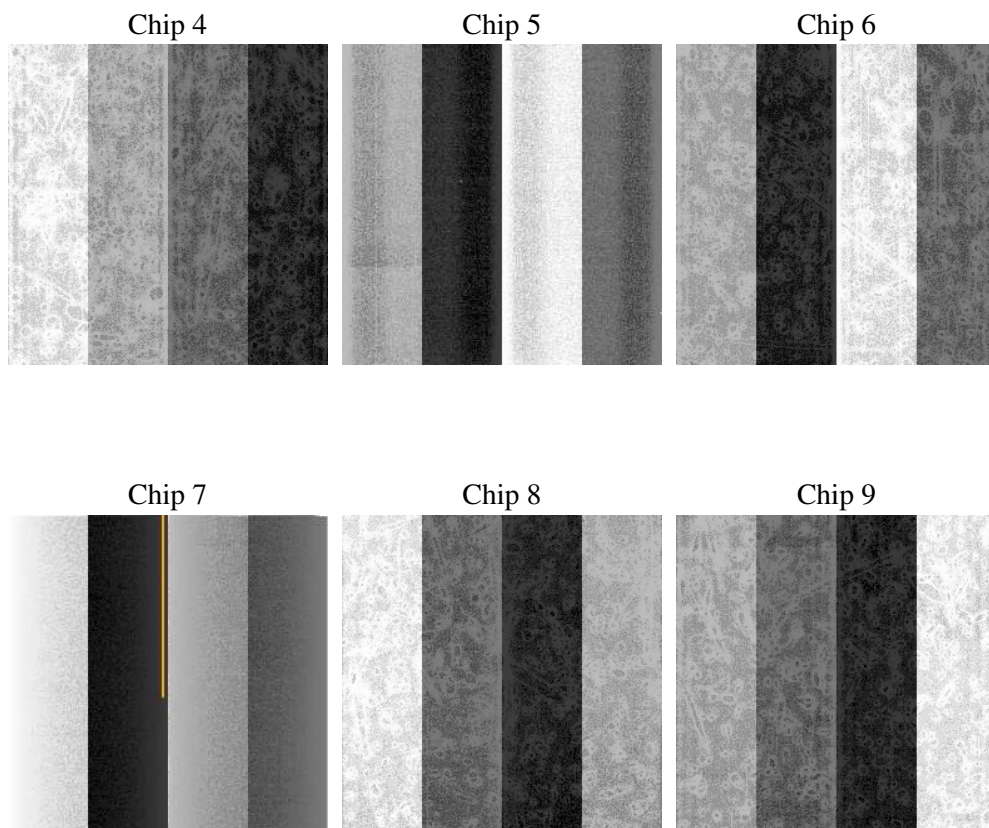
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0
ascdsver	7.6.9
caldbver	3.2.3
date	2006-11-02T18:07:55
revision	2

sched_exp_time	6000.000000
ontime	5947.2279282361
ontime4	5950.4688784927
ontime5	5947.227948159
ontime6	5947.2279182374
ontime7	5947.2279282361
ontime8	5950.4688784927
ontime9	5950.4689084142
l1events	247544

2.1.4 Events

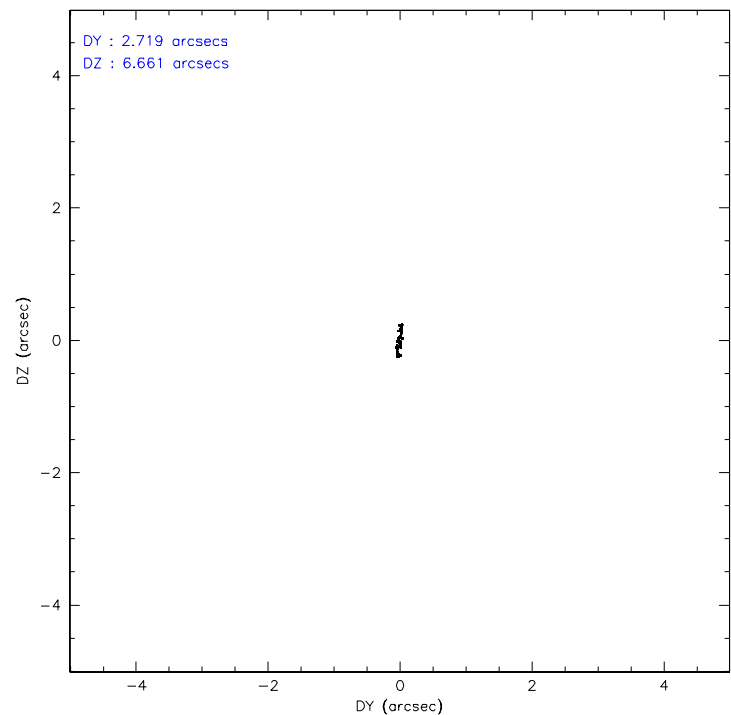
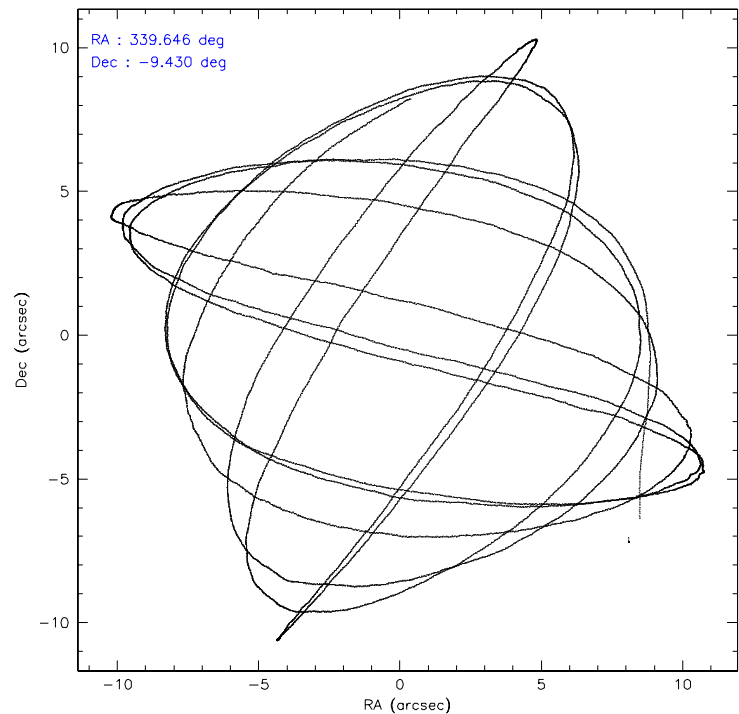
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	38367	53397	23126	47705	45342	39607
rejected events	33766	27925	20535	28557	36285	31538
rejected %	88%	52%	88%	59%	80%	79%

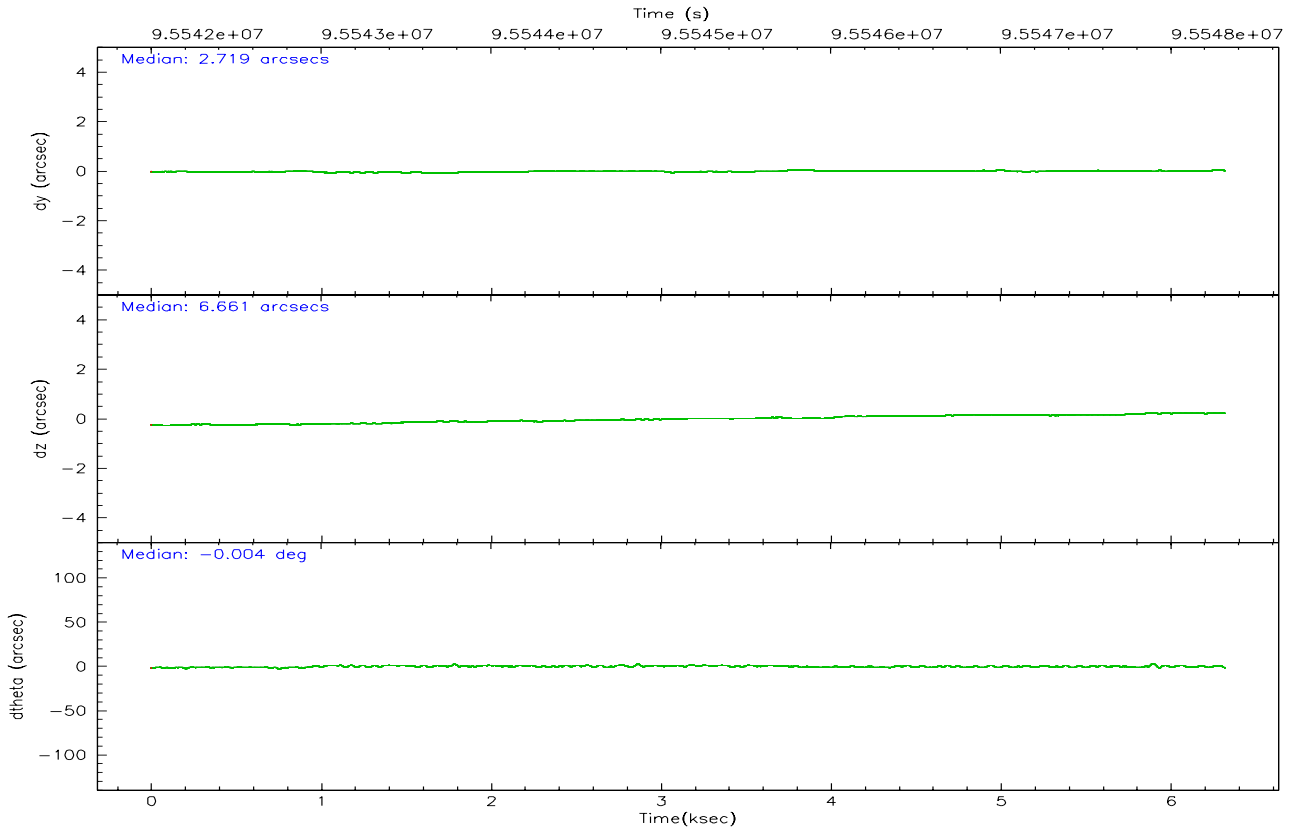
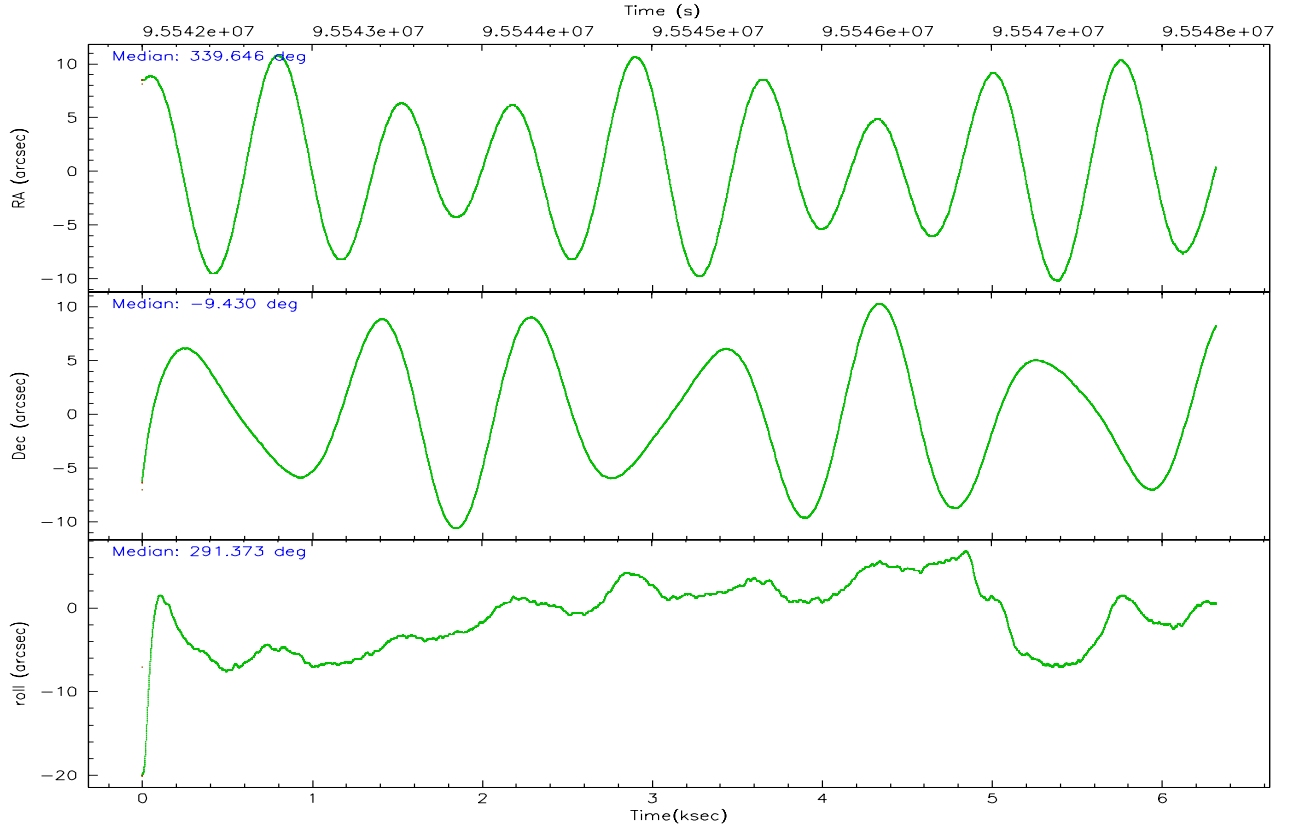
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	1993	4251	995	1312	2923	1942
	5%	7%	4%	2%	6%	4%
grade 1 events	15	153	8	23	24	16
	0%	0%	0%	0%	0%	0%
grade 2 events	1051	7134	530	4607	1965	4133
	2%	13%	2%	9%	4%	10%
grade 3 events	414	627	262	1058	937	440
	1%	1%	1%	2%	2%	1%
grade 4 events	409	564	274	1033	905	411
	1%	1%	1%	2%	1%	1%
grade 5 events	1277	2436	890	3088	1917	1540
	3%	4%	3%	6%	4%	3%
grade 6 events	741	12923	539	11152	2347	1155
	1%	24%	2%	23%	5%	2%
grade 7 events	32467	25309	19628	25432	34324	29970
	84%	47%	84%	53%	75%	75%

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	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	339.624447	339.6462146584987	Subarray requested	NONE	NONE
Pointing Dec	-9.413220	-9.430073561765454	Alternating exposures requested	N	N
Pointing Roll	291.210595	291.3707357969585	Primary exposure time	3.200000	3.2
Window start time	95299264.184000	95299264.184000			
Window stop time	95990464.184000	95990464.184000			
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	95542318.184000	95541293.68374			
Observation start date	2001-01-10T19:30:54	2001-01-10T19:14:53			
Observation end time	95548318.184000	95548452.284015			
Observation end date	2001-01-10T21:10:54	2001-01-10T21:14:12			
Read mode	TIMED	TIMED			

2.3 Aspect



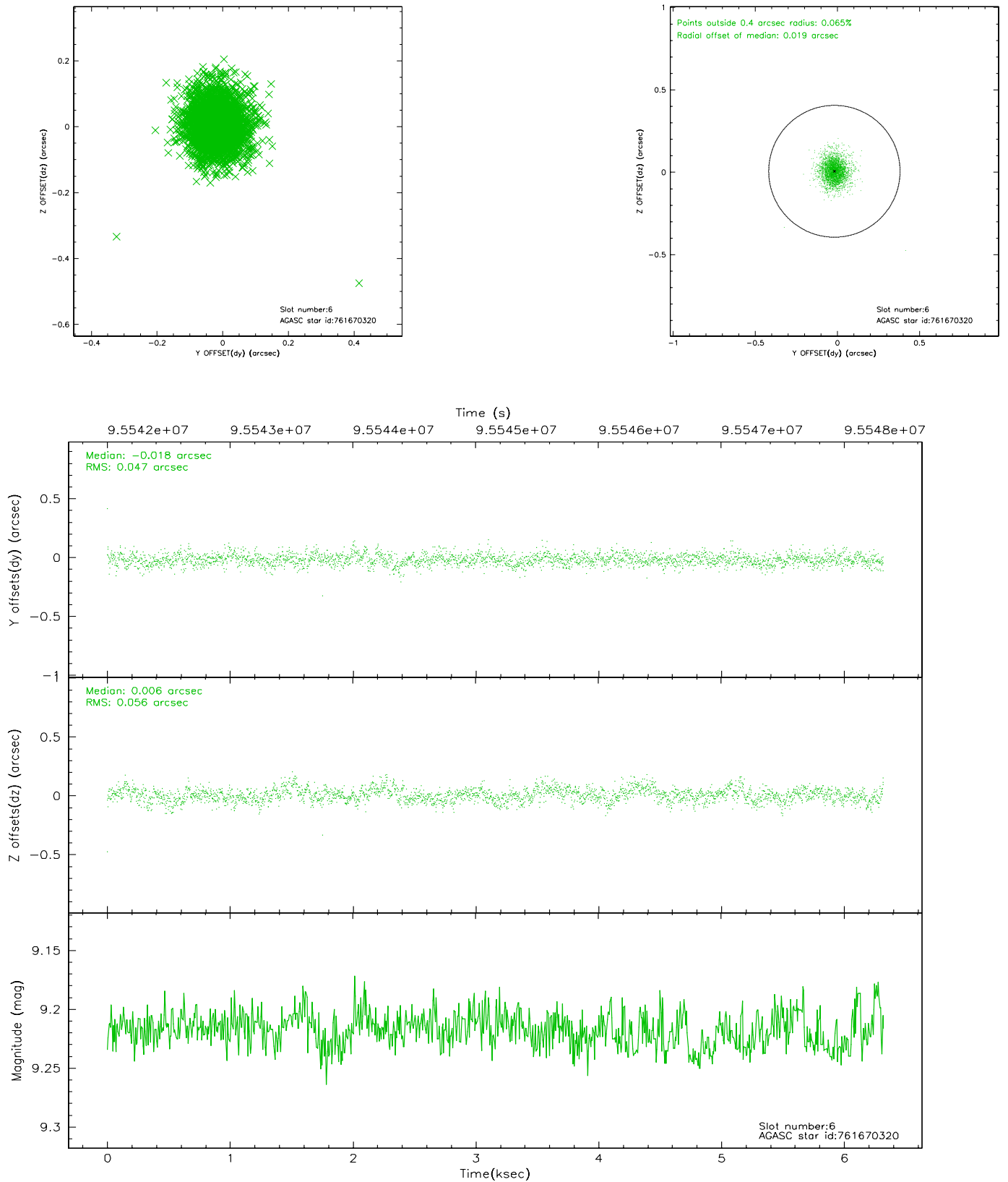


Slot Statistics

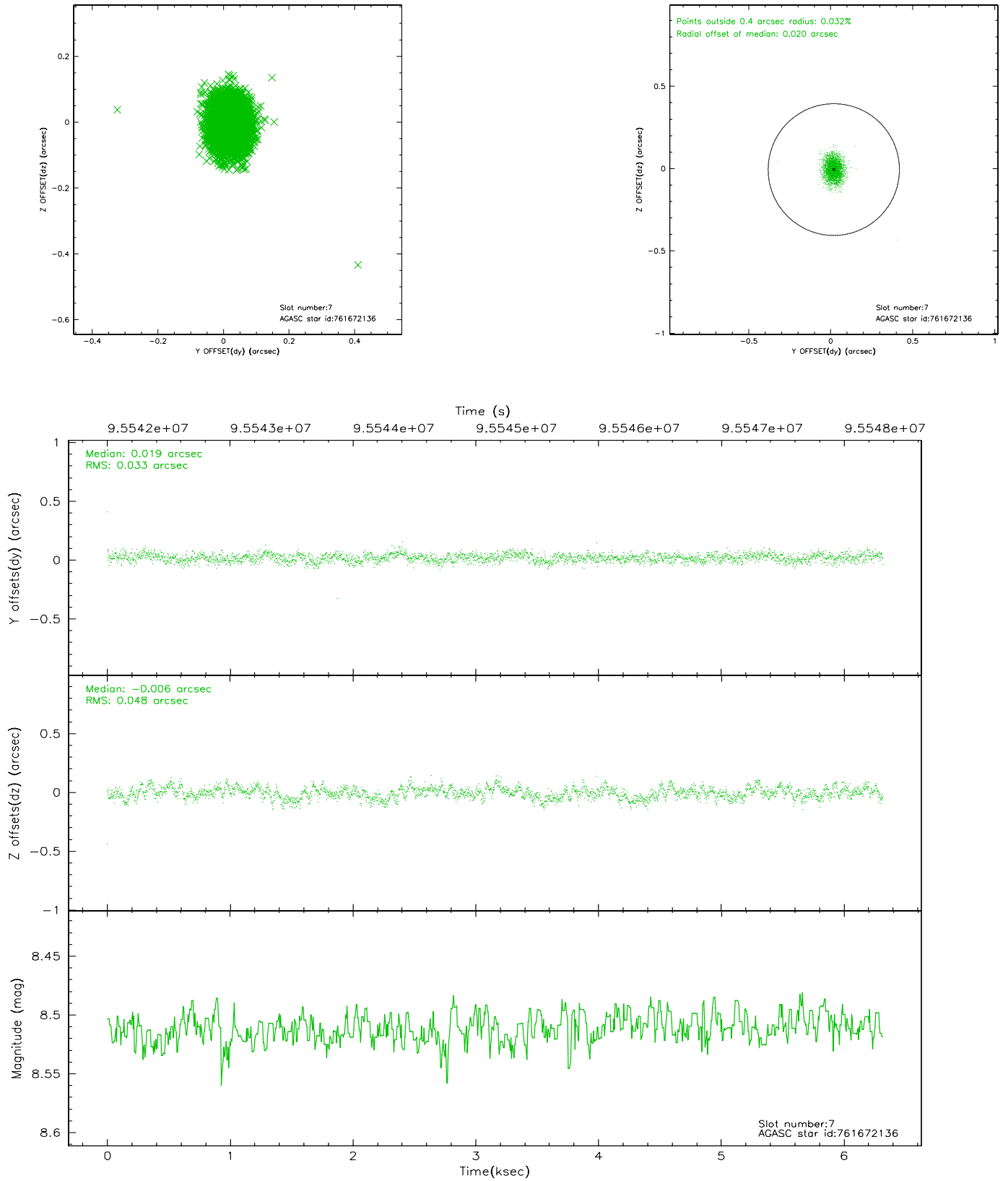
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	1542	-0.030	0.037	0.005	0.009	0.000000	0.000000	-755.39	-1727.76
1	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
2	FID	ACIS-S-5	7.23	1542	0.011	-0.033	0.005	0.010	0.000000	0.000000	-1808.86	173.19
3	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
4	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
5	OMITTED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
6	GUIDE	761670320	9.22	3082	-0.018	0.006	0.074	0.129	339.180611	-8.948429	-2130.70	-867.04
7	GUIDE	761672136	8.51	3081	0.019	-0.006	0.060	0.099	339.196147	-9.393141	-618.22	-1393.25

2.4 Star Slots

2.4.1 Slot 6

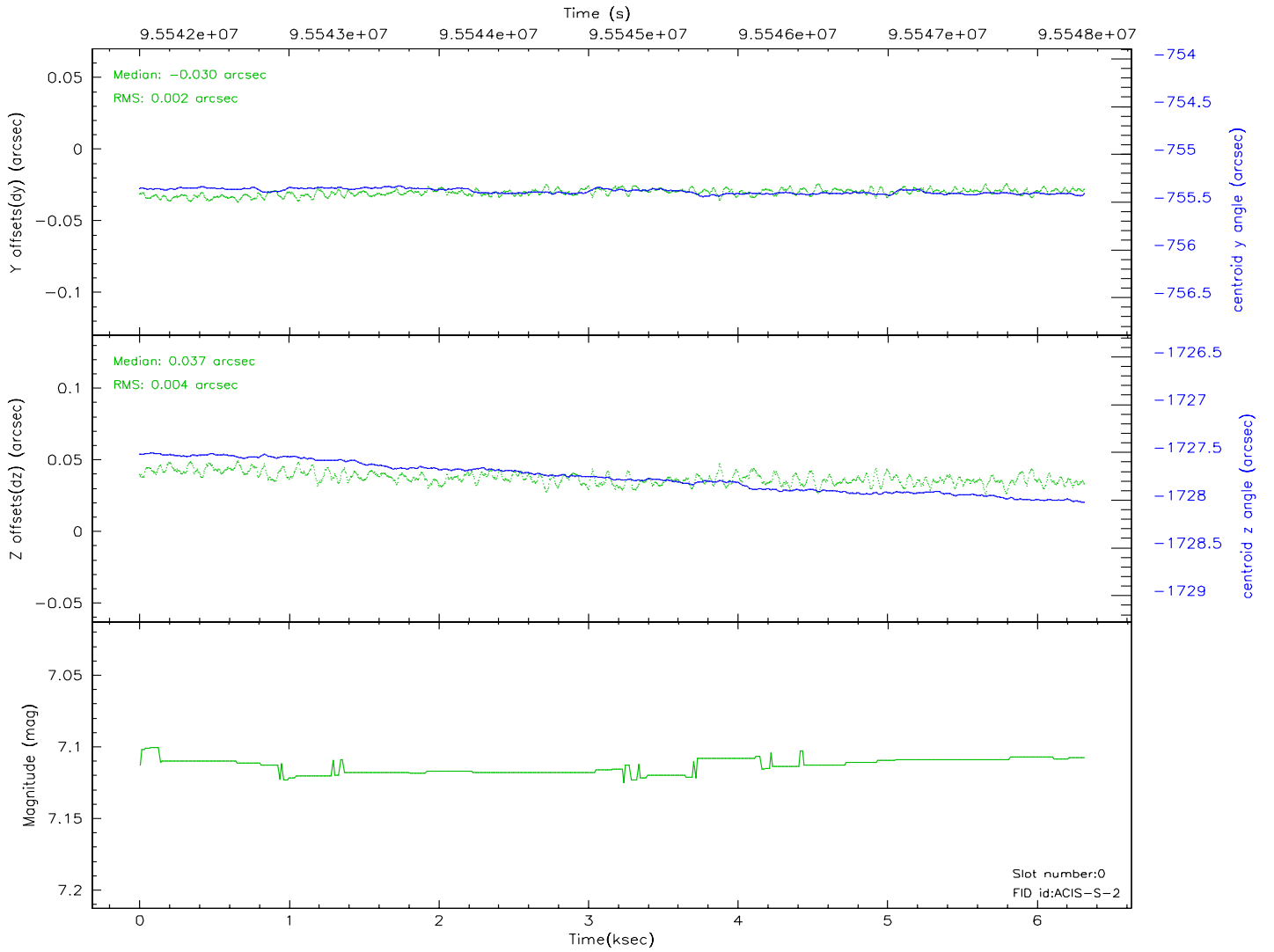
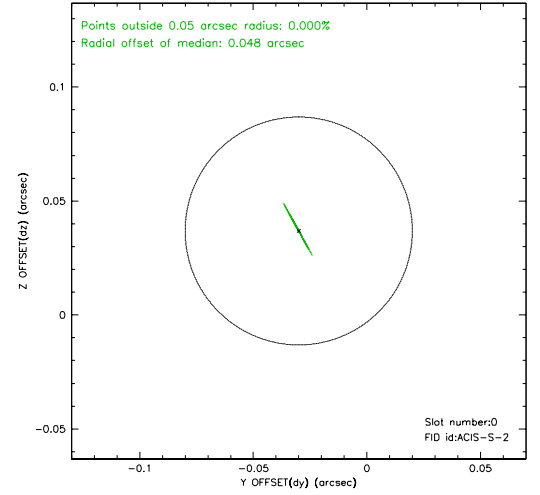
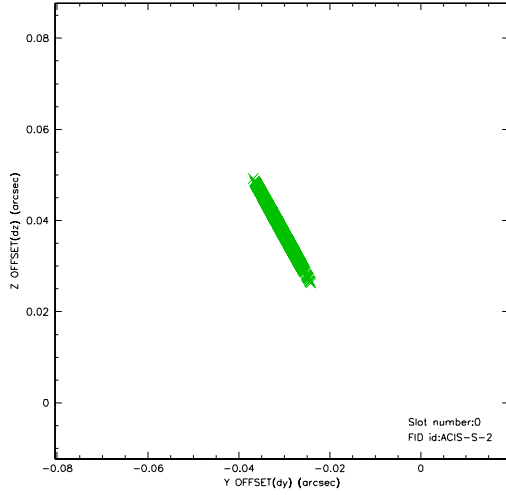


2.4.2 Slot 7

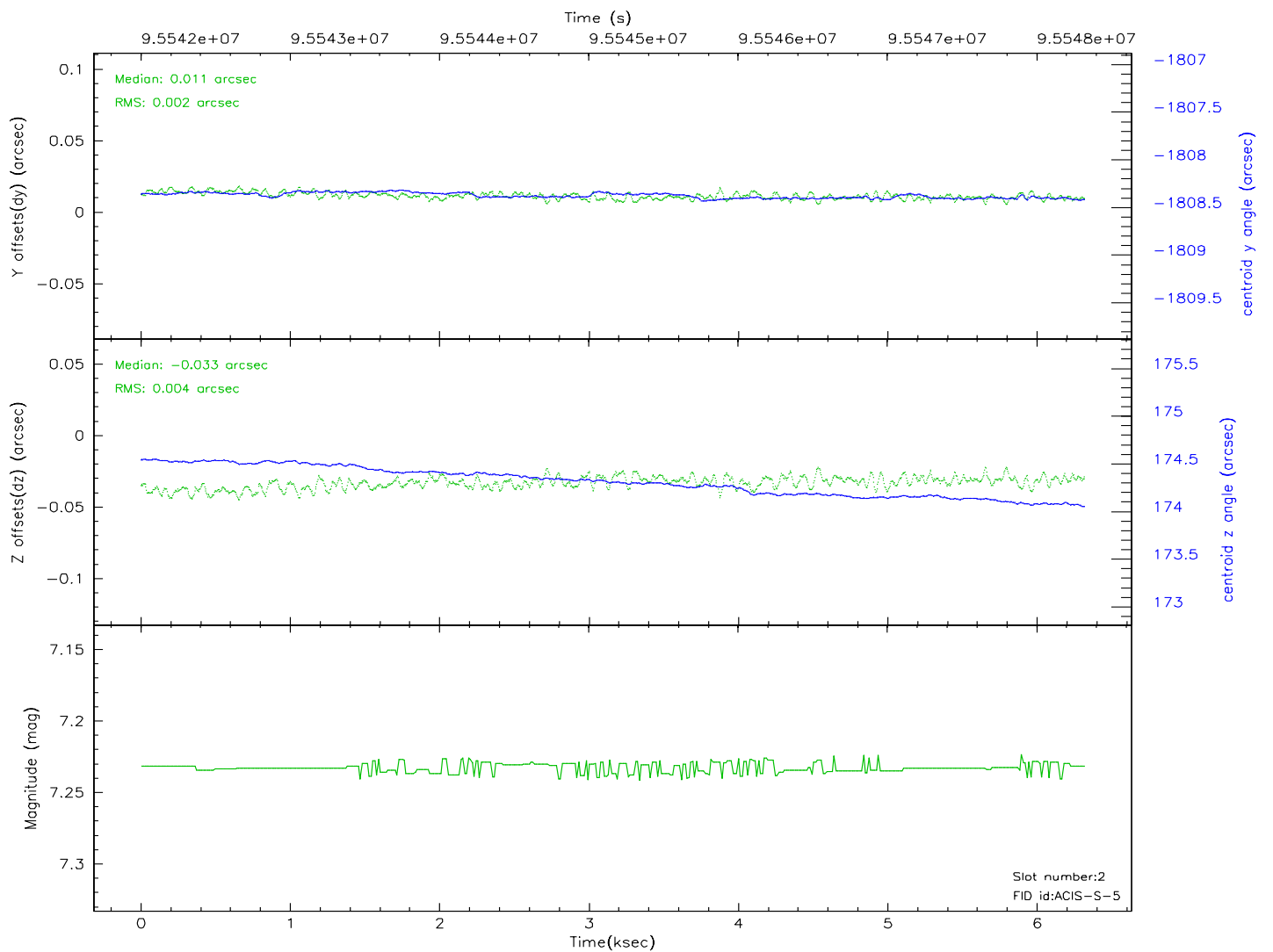
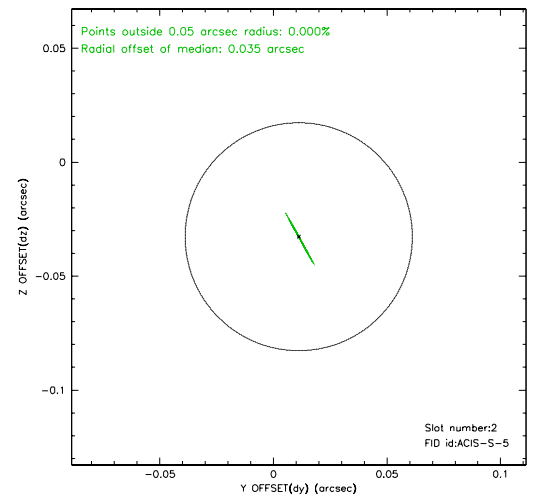
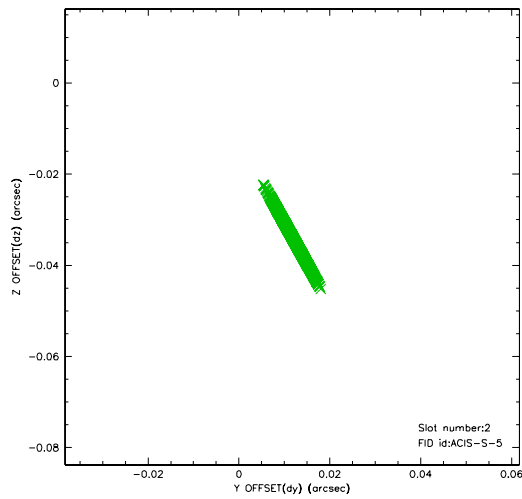


2.5 FID Slots

2.5.1 Slot 0



2.5.2 Slot 2

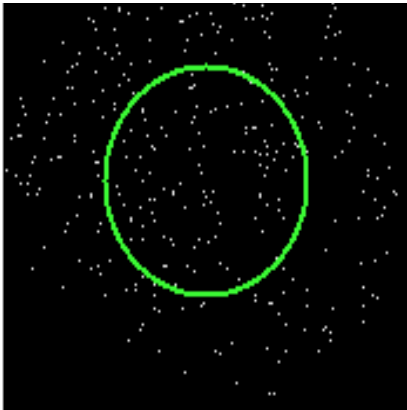


3 Gratings

3.1 LETG Arm



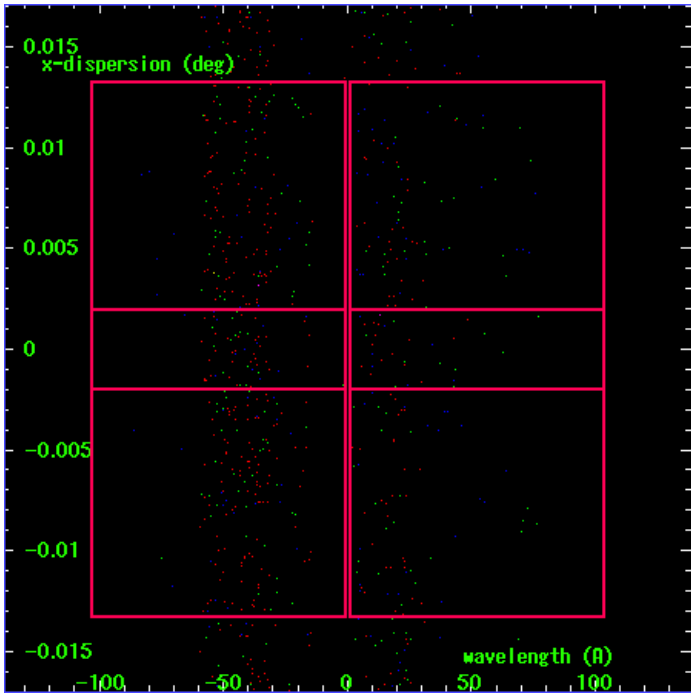
LETG Order Sort 123



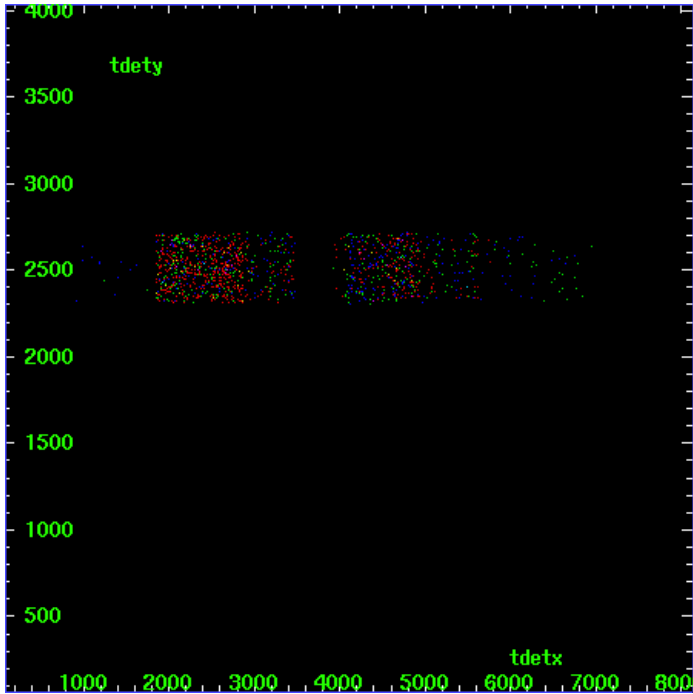
LETG Zero Order



LETG Order Sort ALL

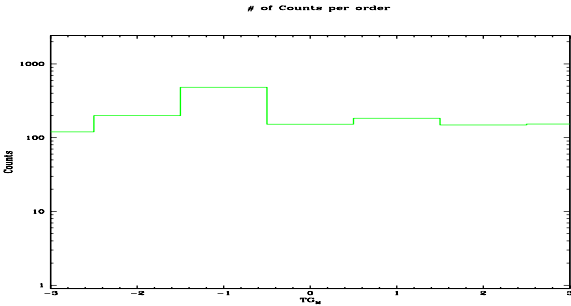


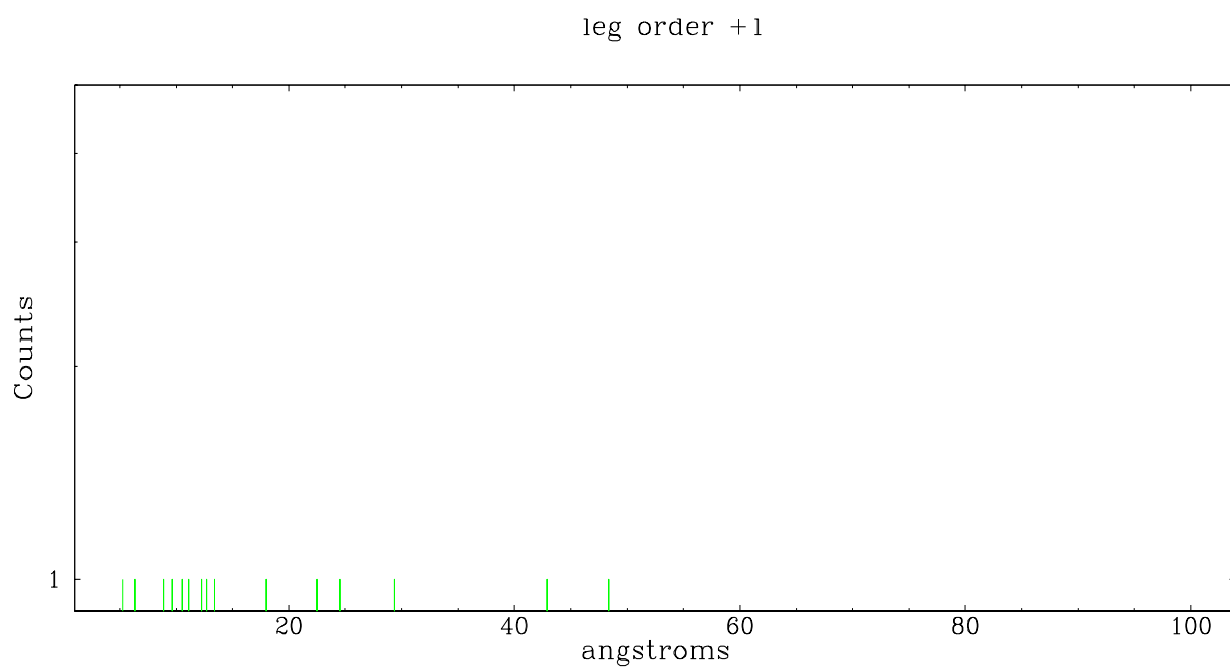
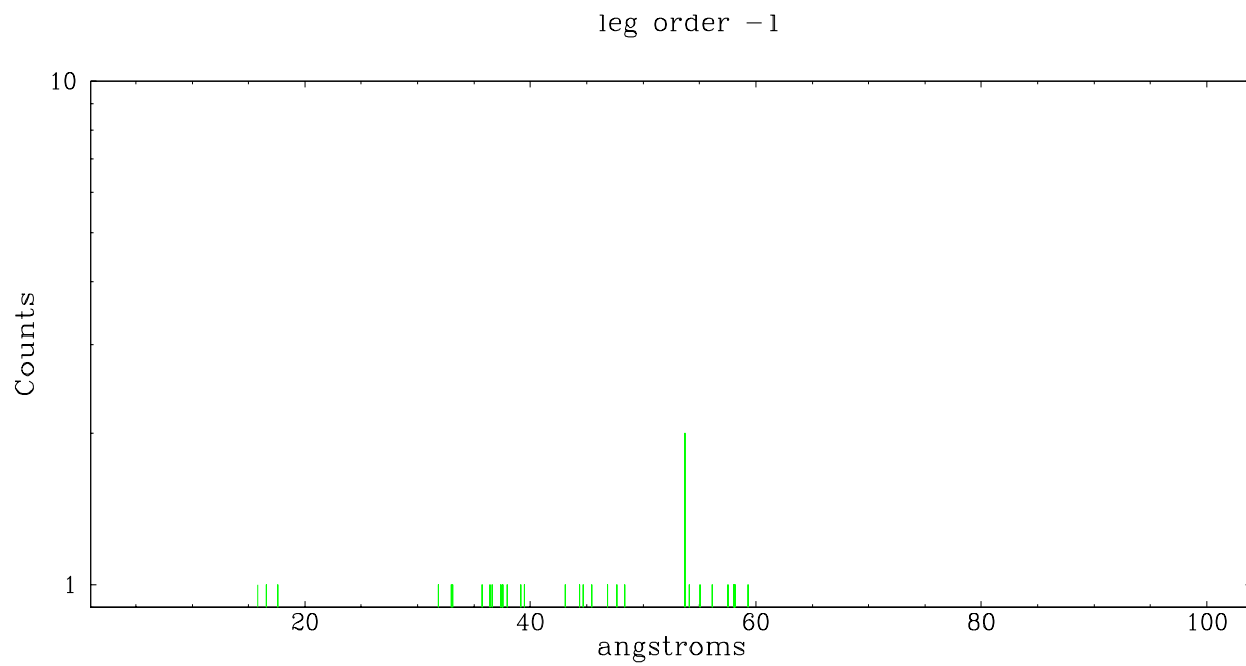
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	120	199	483	152	183	149	153





A Summary

A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.12.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	5.939

A.2 Comments

One of 3 fiducial lights and 3 of 5 guide stars were excluded from the pointing solution due to poor data quality and insufficient tracking accuracy. The 2 remaining fid lights should be adequate for bore sight alignment, but the aspect solution is probably affected to some degree by the use of only 2 guide stars. There is an exclusion region on CCD chip S2. The investigator is advised to work with Level 1 data and evaluate whether events with bad grades should be eliminated. It appears that some source events were removed in the Level 2 version of the event data.