

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 11816 - L2 Version 3
Chandra X-Ray Center

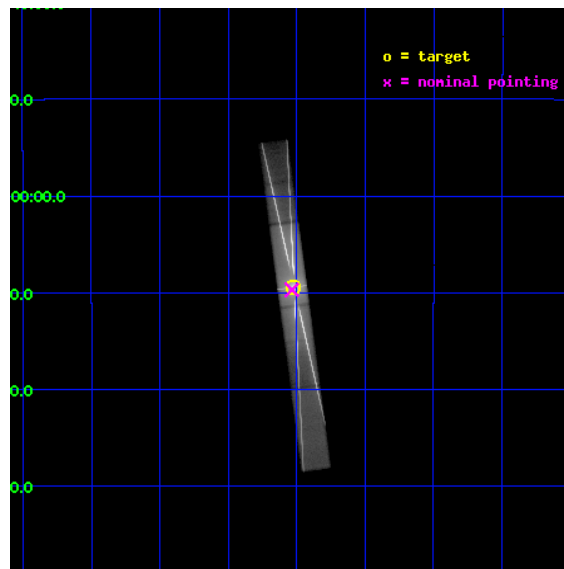
L2 Processing Date : Jul 11 2012

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1 Front

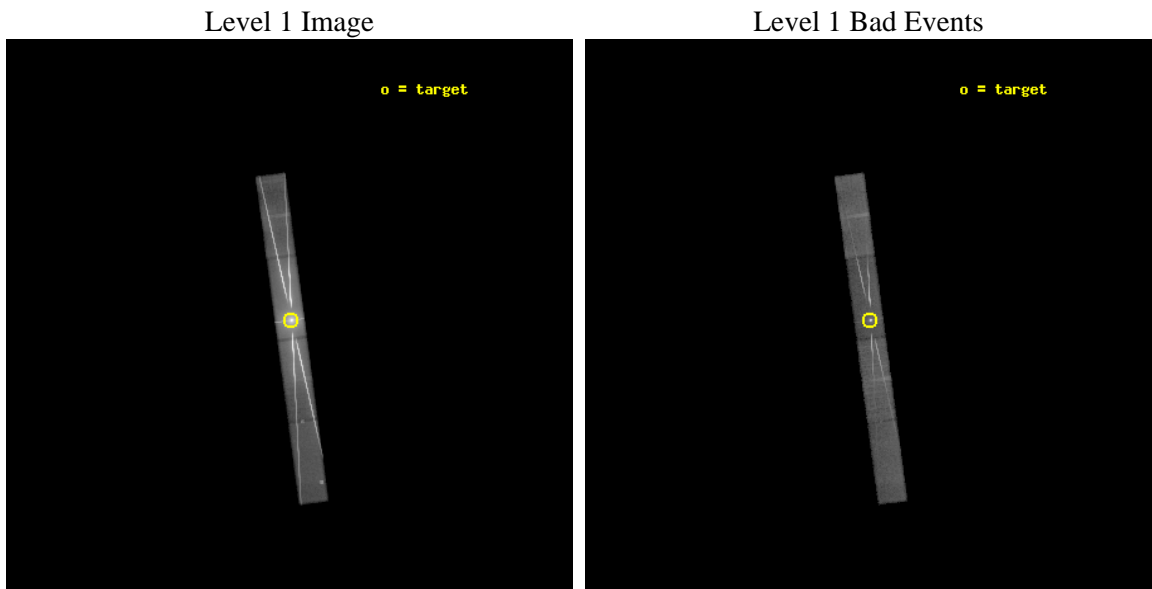
seq_num	401132	Sequence number
obs_id	11816	Observation id
title	Observe Bright Atol Sources at High Mass Accretion Rates	Proposal
observer	Prof Claude Canizares	Principal investigator
object	GX 13+1	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	273.631667	Observer's specified target RA [deg]
dec_targ	-17.157417	Observer's specified target Dec [deg]
ra_nom	273.6337488981	Nominal RA [deg]
dec_nom	-17.161867917435	Nominal Dec [deg]
roll_nom	262.35575750421	Nominal Roll [deg]
revision	3	Processing version of data
ontime	29079.59971118	Sum of GTIs [s]
liveltime	28117.965297989	Livetime [s]
ontime5	29079.59971118	Sum of GTIs [s]
ontime6	29079.59971118	Sum of GTIs [s]
ontime7	29079.59971118	Sum of GTIs [s]
ontime8	29079.59971118	Sum of GTIs [s]
l2events	3109818	Number of level 2 events



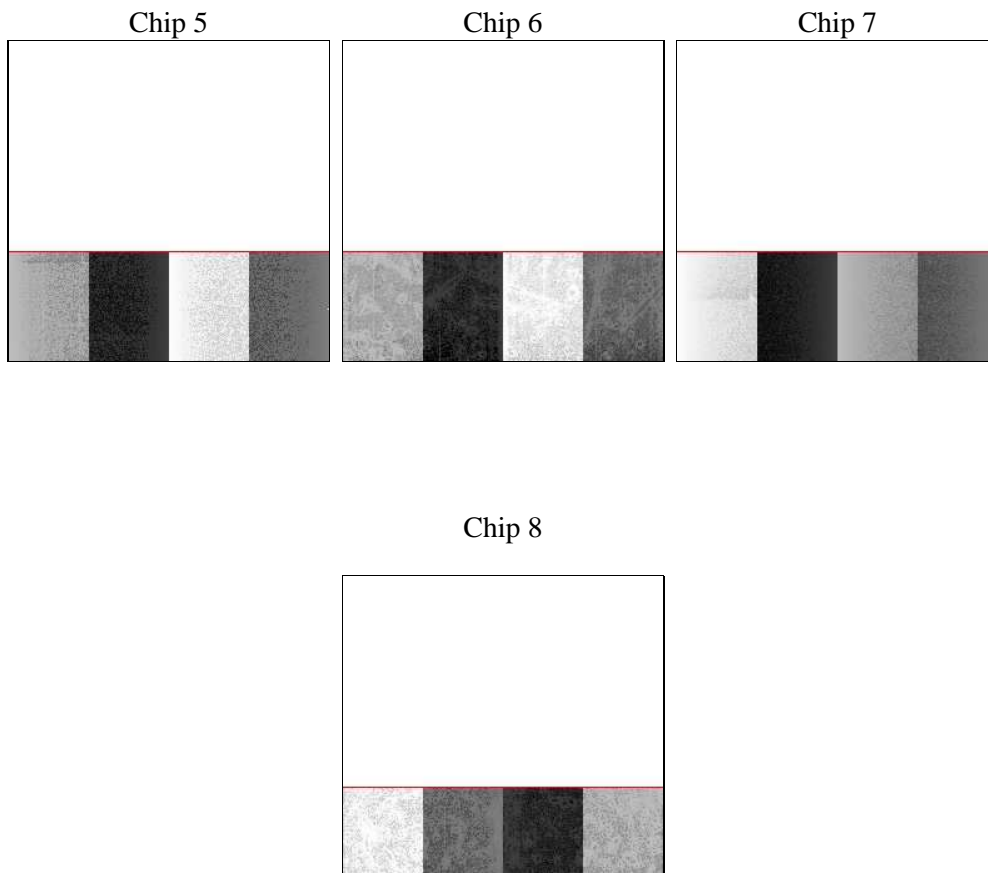
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	29079.59971118	Sum of GTIs [s]
caldbver	4.5.0	 	ontime5	29079.59971118	Sum of GTIs [s]
date	2012-07-01T03:46:14	Date and time of file creation	ontime6	29079.59971118	Sum of GTIs [s]
revision	2	Processing version of data	ontime7	29079.59971118	Sum of GTIs [s]
			ontime8	29079.59971118	Sum of GTIs [s]
			l1events	3608925	Number of level 1 events

2.1.4 Events

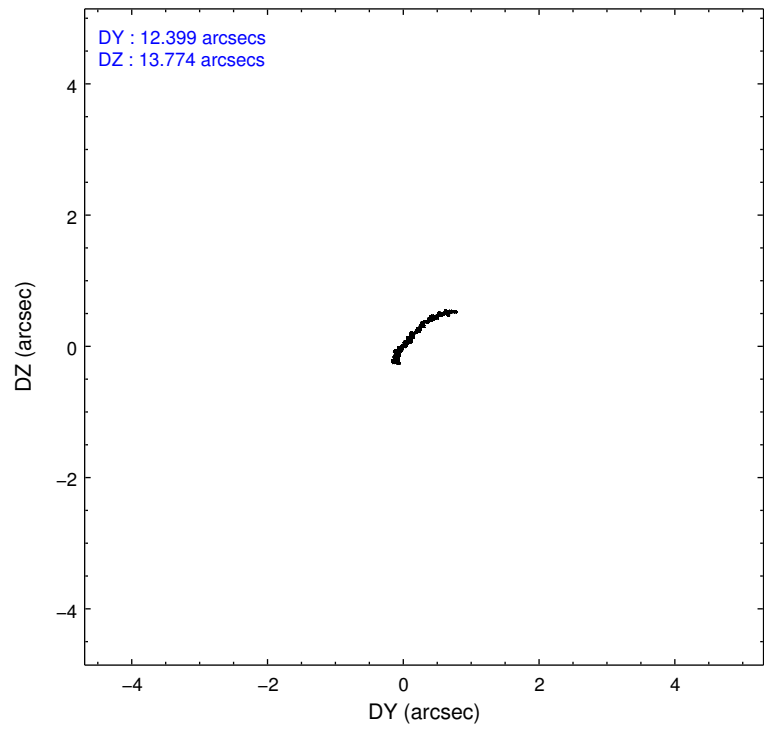
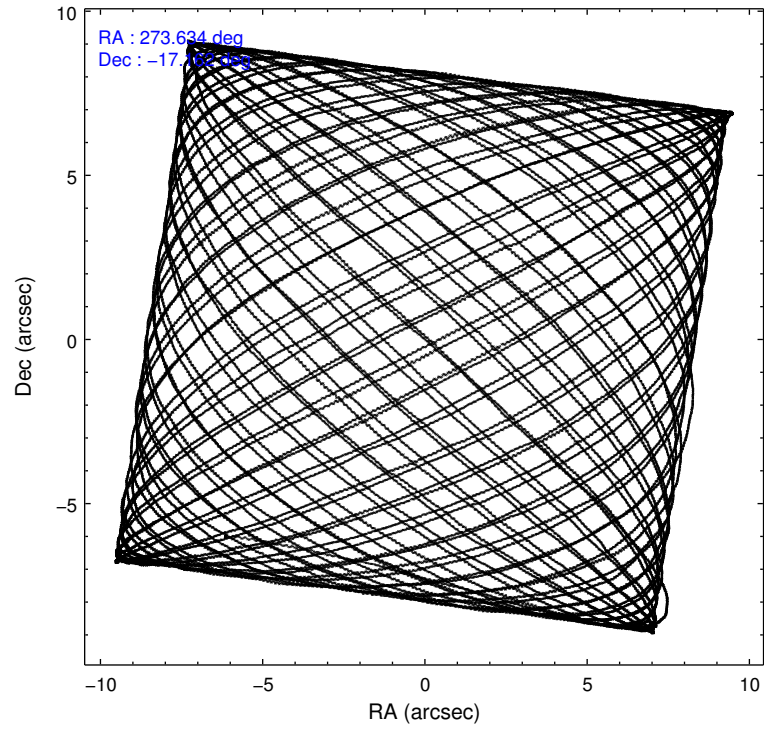
	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	201533	1206100	1853249	348043
rejected events	57358	112458	129285	85918
rejected %	28%	9%	6%	24%

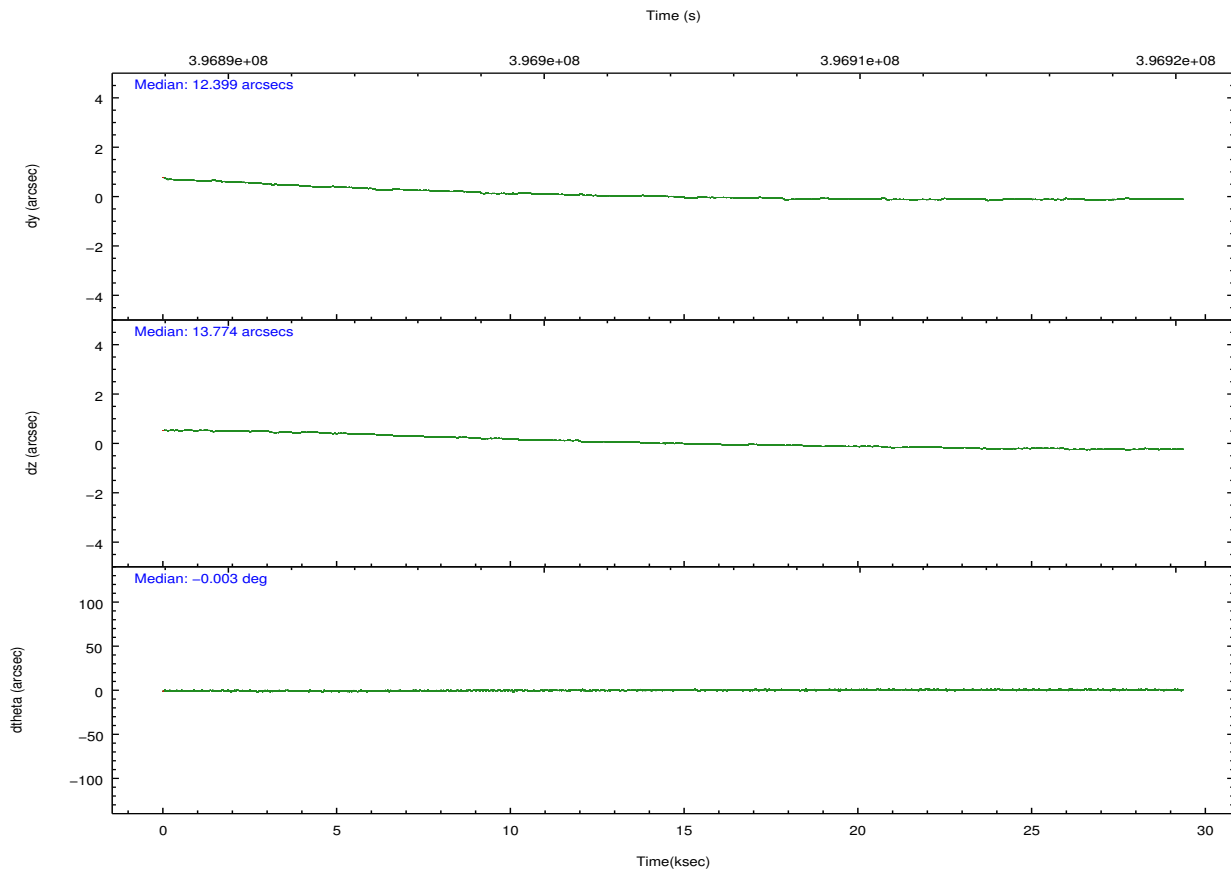
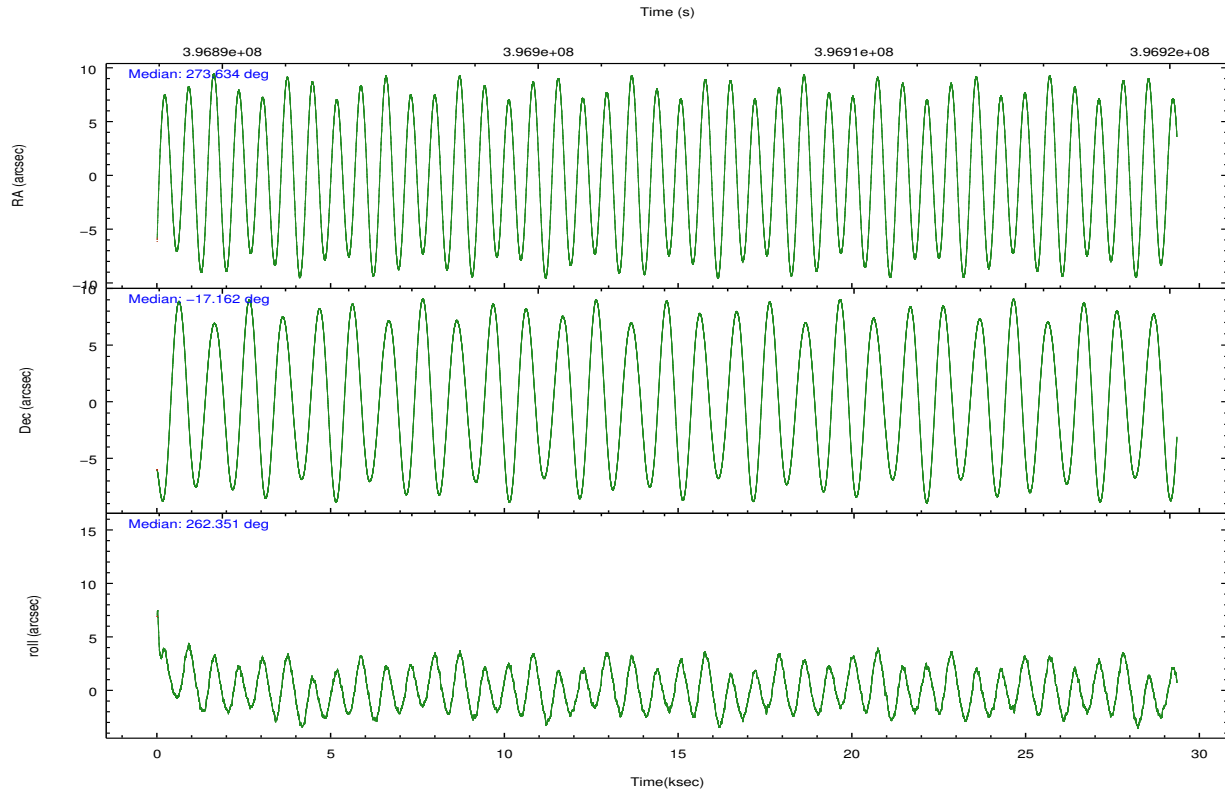
	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	35607	772929	319571	187136
	17%	64%	17%	53%
grade 1 events	394	13475	7120	1026
	0%	1%	0%	0%
grade 2 events	39586	148422	416189	34058
	19%	12%	22%	9%
grade 3 events	11807	53428	184754	12392
	5%	4%	9%	3%
grade 4 events	11690	52518	183576	12126
	5%	4%	9%	3%
grade 5 events	10634	15055	41391	5500
	5%	1%	2%	1%
grade 6 events	45488	66385	619958	16419
	22%	5%	33%	4%
grade 7 events	46327	83888	80690	79386
	22%	6%	4%	22%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-5678	ACIS-5678	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	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
[deg] Pointing RA	273.622488	273.6337488981038	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	-17.136703	-17.16186791743475	Subarray start row	1	1
[deg] Pointing Roll	262.195809	262.3557575042101	Subarray row count	350	350
[mm] SIM focus pos	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
[mm] SIM defocus	0	0.001444936568705701	[s] Primary exposure time	0.000000	1.2
[mm] SIM translation stage pos	-182.132523	-182.1344861297048			
[mm] SIM translation stage offset	-8	-7.998036453302973			
[s] Observation start time (MET)	396889764.184000	396888511.48685			
Observation start date	2010-07-30T15:08:18	2010-07-30T14:48:31			
[s] Observation end time (MET)	396918764.184000	396919125.16342			
Observation end date	2010-07-30T23:11:38	2010-07-30T23:18:45			
Read mode	TIMED	TIMED			

2.3 Aspect



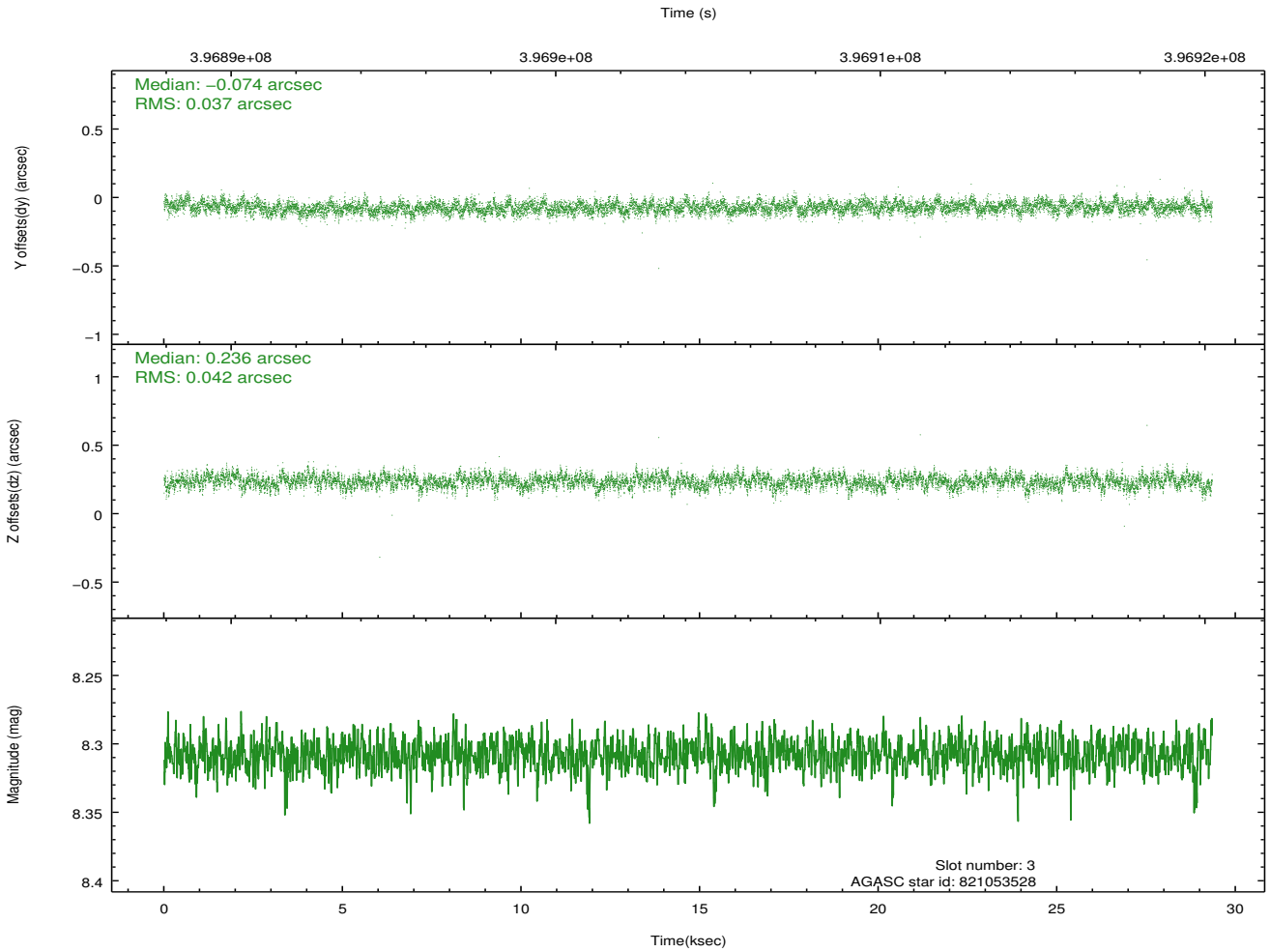
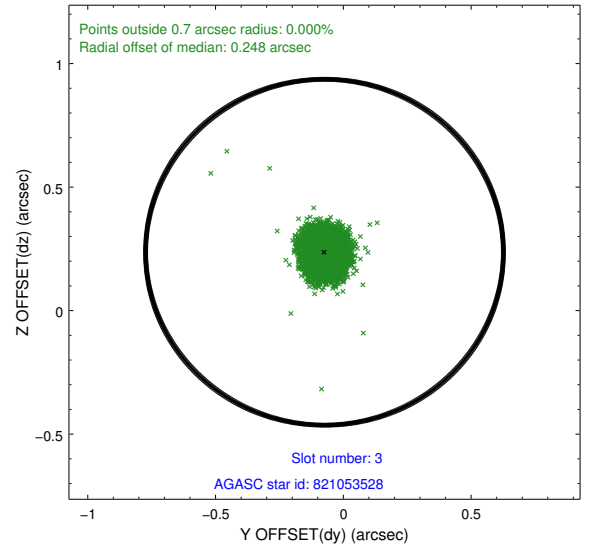
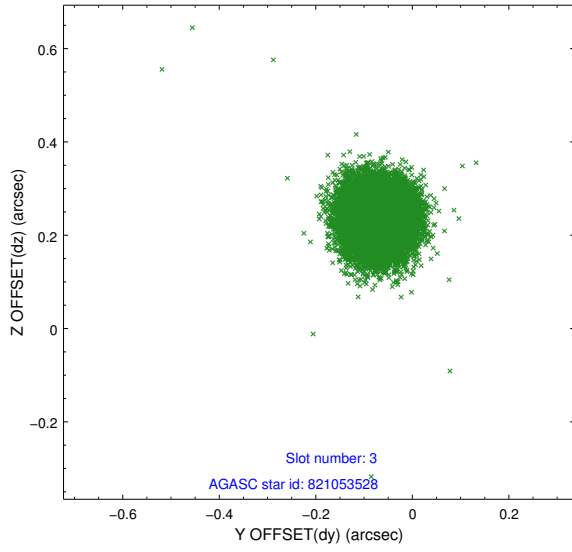


Slot Statistics

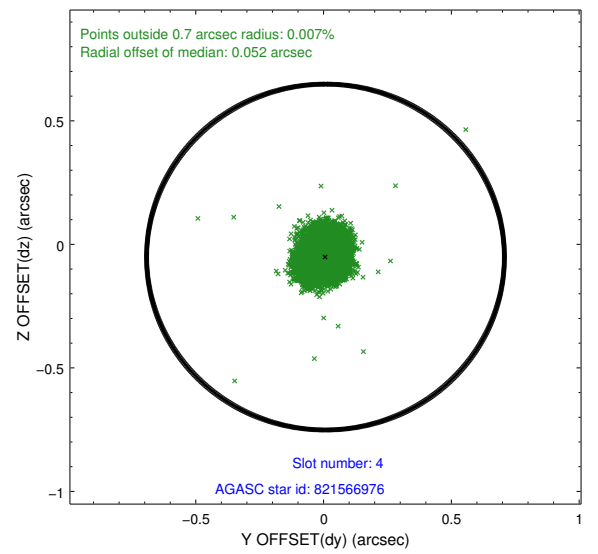
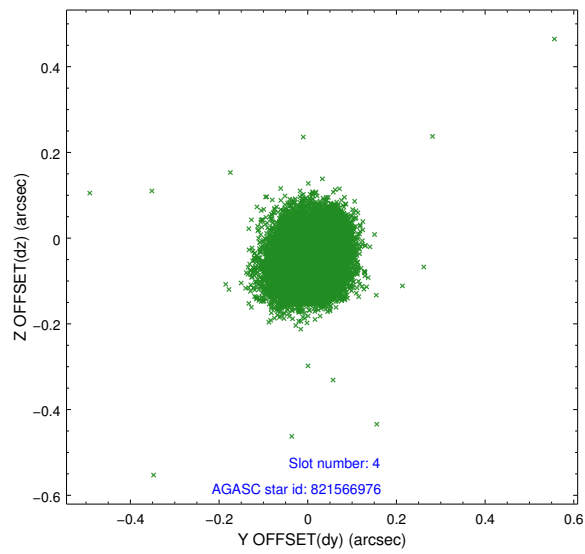
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	7157	-0.122	-0.082	0.007	0.013	0.000000	0.000000	-764.97	-1900.03
1	FID	ACIS-S-4	6.96	7158	0.126	0.067	0.009	0.017	0.000000	0.000000	2148.54	8.45
2	FID	ACIS-S-6	7.18	7158	-0.031	0.022	0.008	0.015	0.000000	0.000000	397.24	645.91
3	GUIDE	821053528	8.31	14310	-0.074	0.236	0.059	0.096	273.625019	-16.498449	-2277.25	-303.37
4	GUIDE	821566976	8.44	14304	0.008	-0.051	0.072	0.114	272.948338	-16.893938	-546.30	-2418.87
5	GUIDE	821568752	8.31	14314	0.146	-0.042	0.064	0.106	273.050073	-17.733446	2398.33	-1652.52
6	GUIDE	821579296	8.56	14309	-0.008	0.031	0.085	0.131	273.605242	-17.813626	2422.75	272.56
7	GUIDE	821707704	8.95	14308	-0.071	-0.173	0.082	0.134	274.330077	-16.988328	-855.54	2341.53

2.4 Star Slots

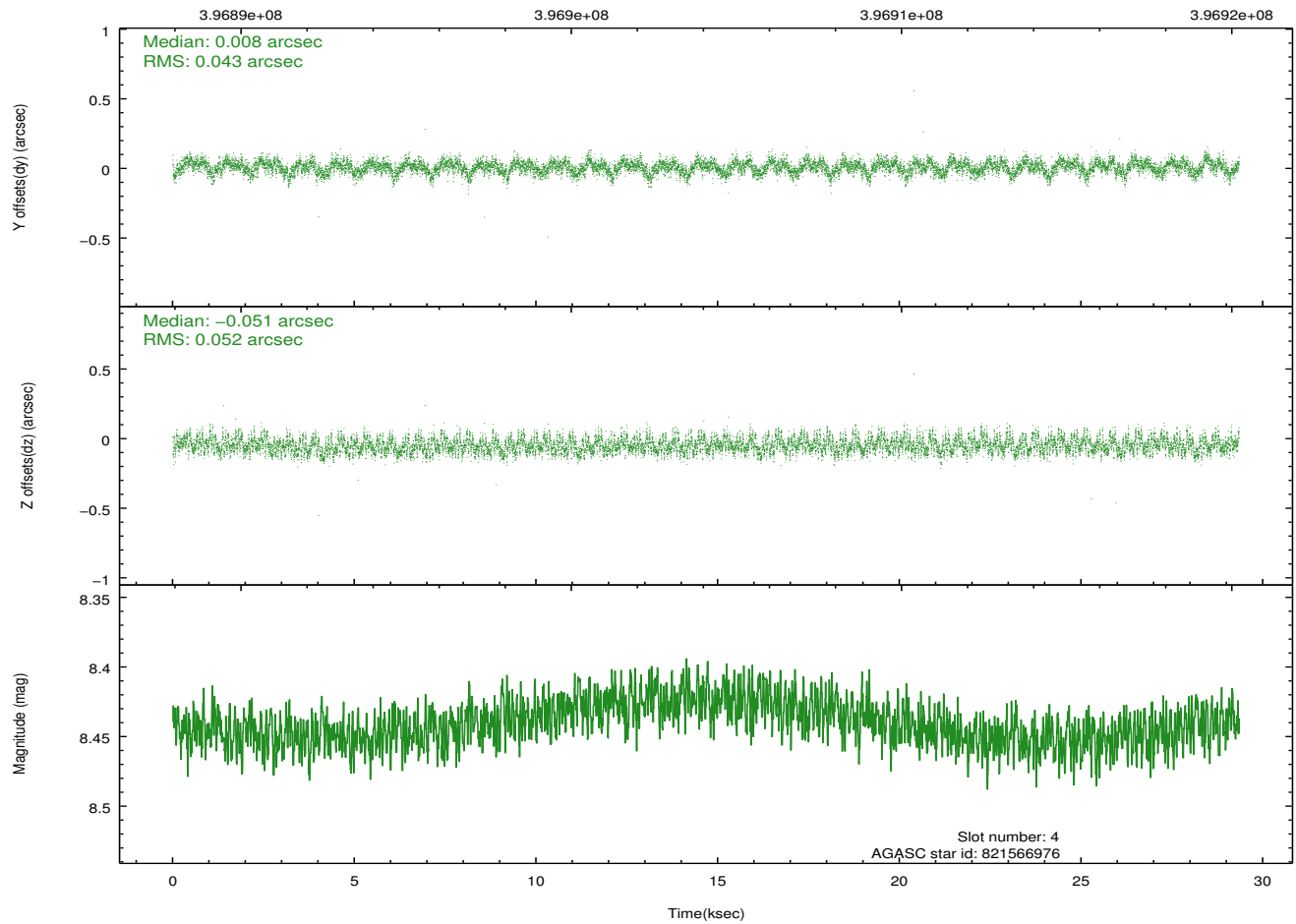
2.4.1 Slot 3



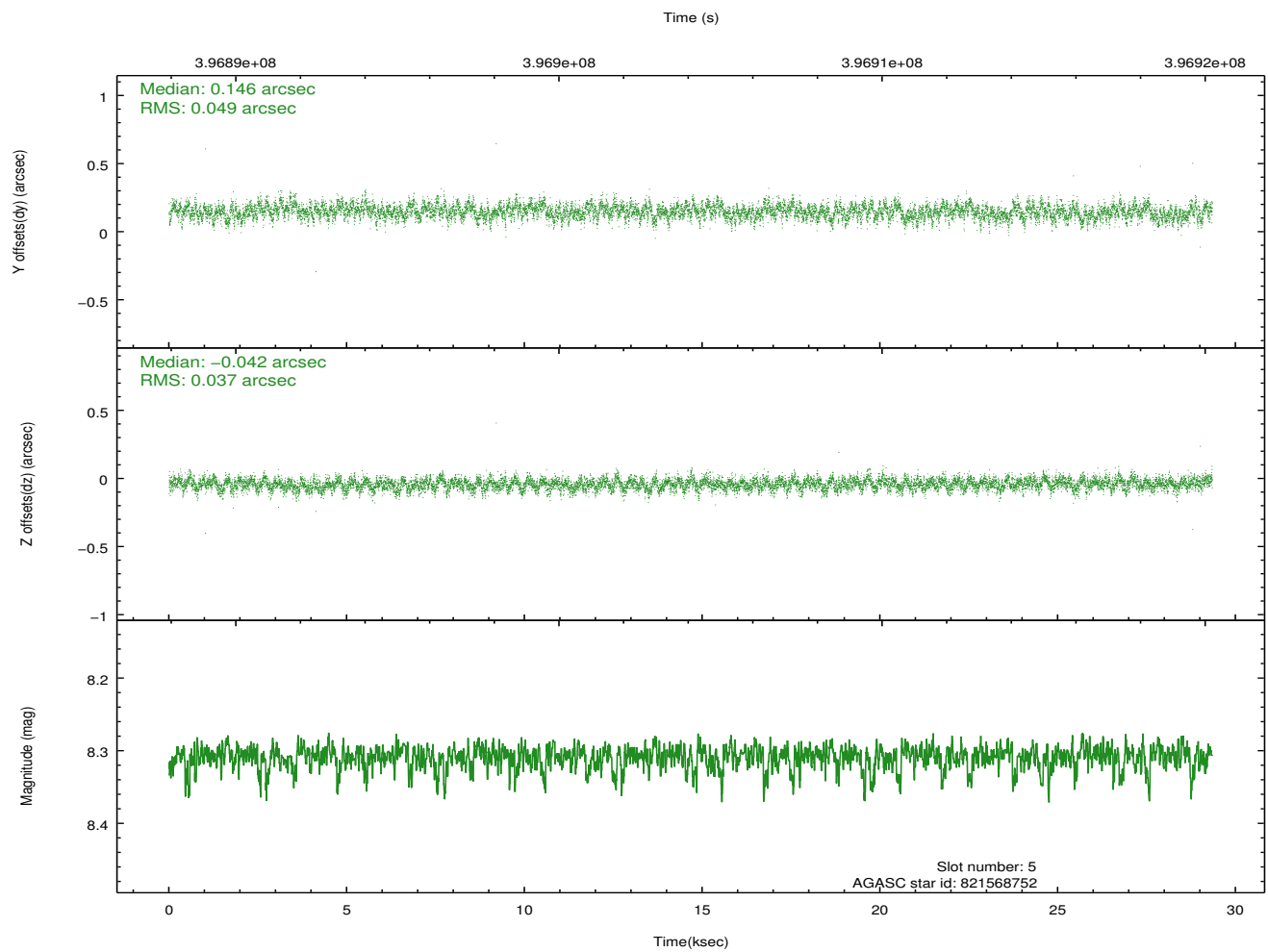
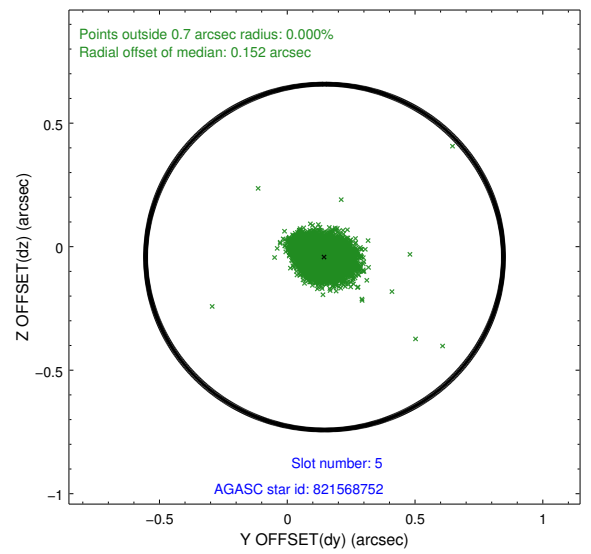
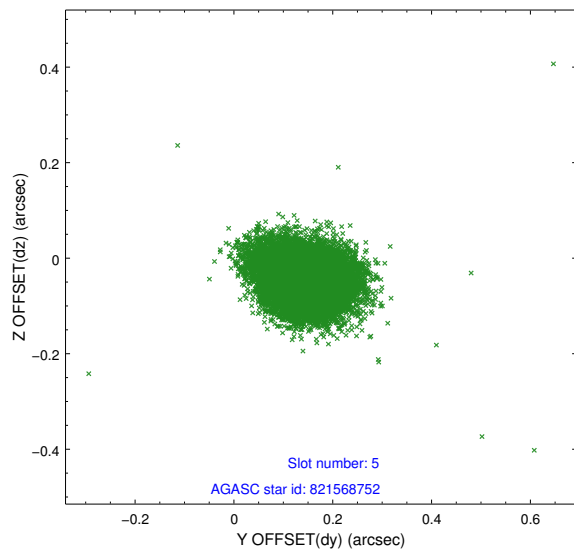
2.4.2 Slot 4



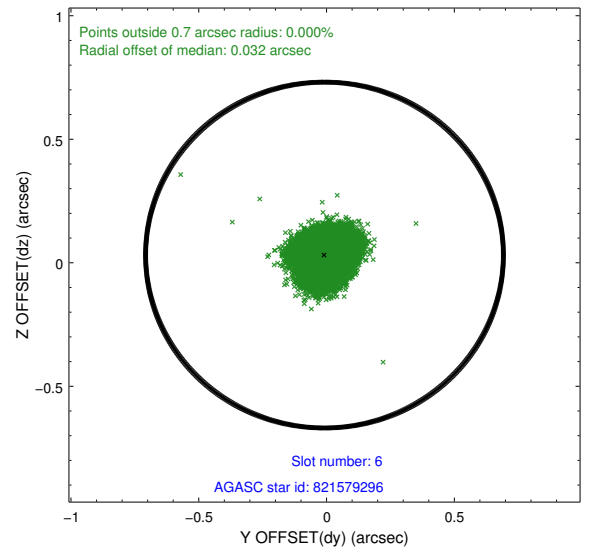
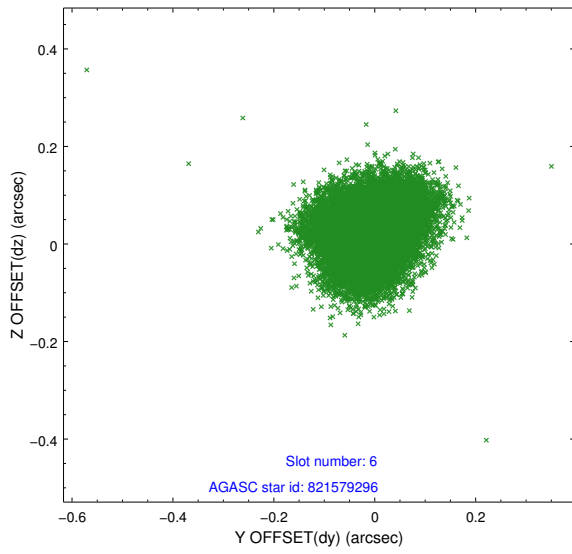
Time (s)



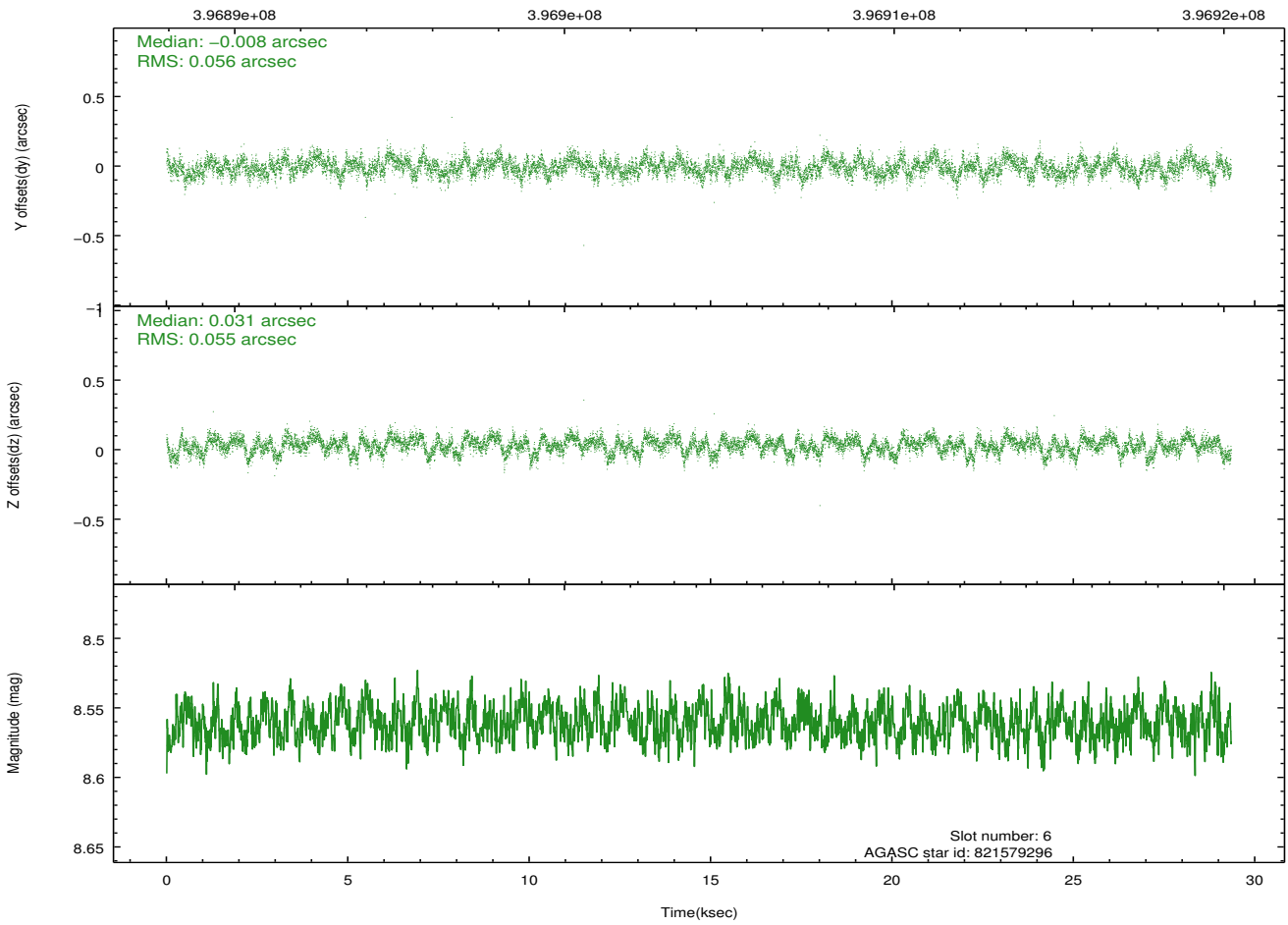
2.4.3 Slot 5



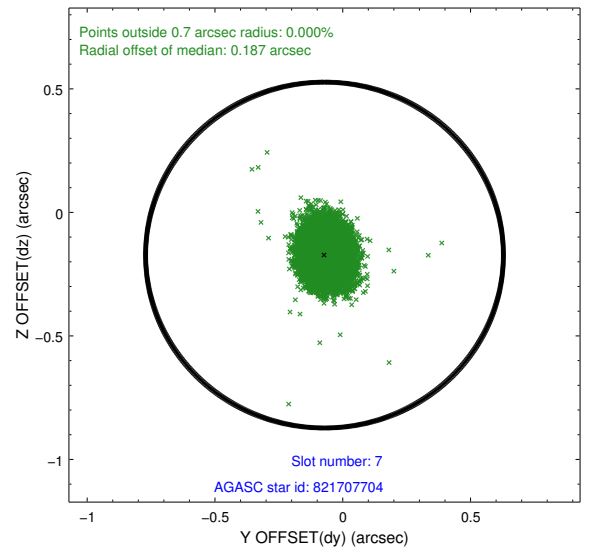
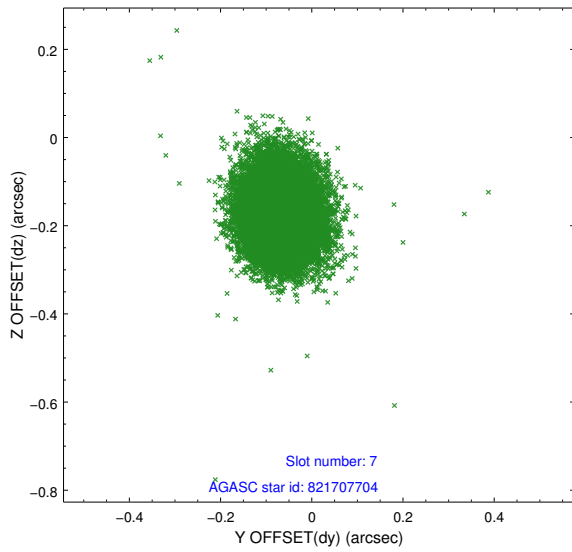
2.4.4 Slot 6



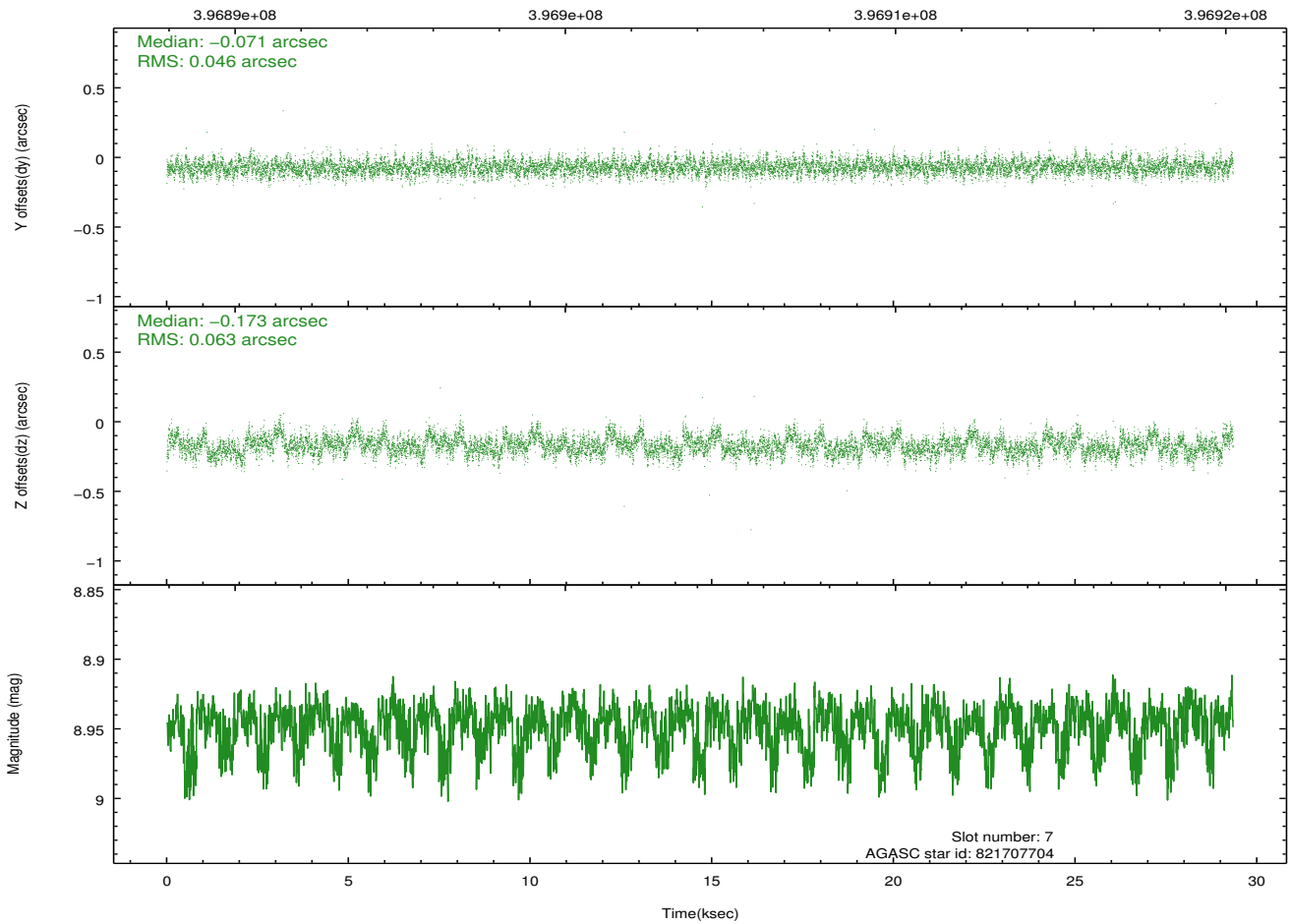
Time (s)



2.4.5 Slot 7

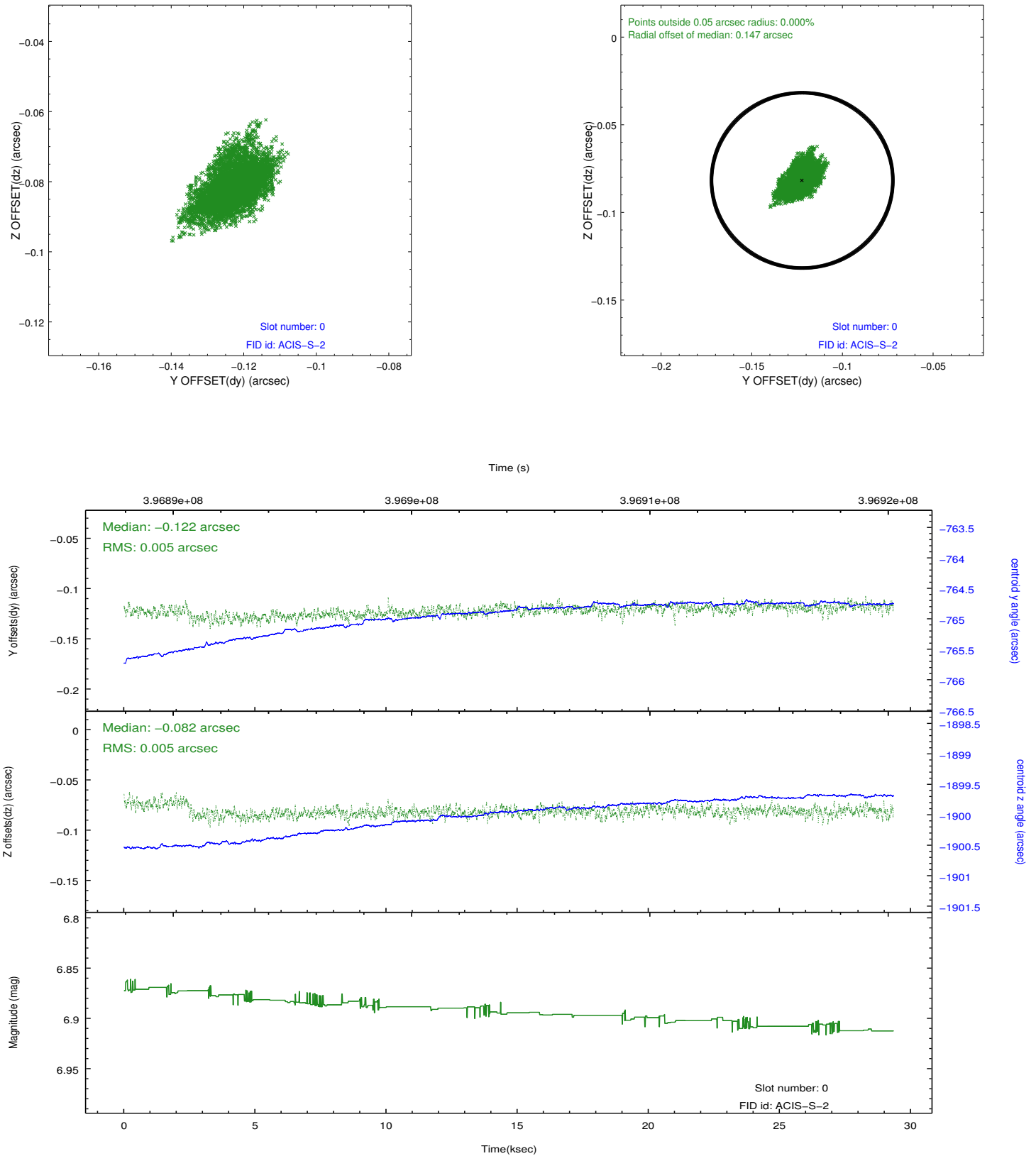


Time (s)

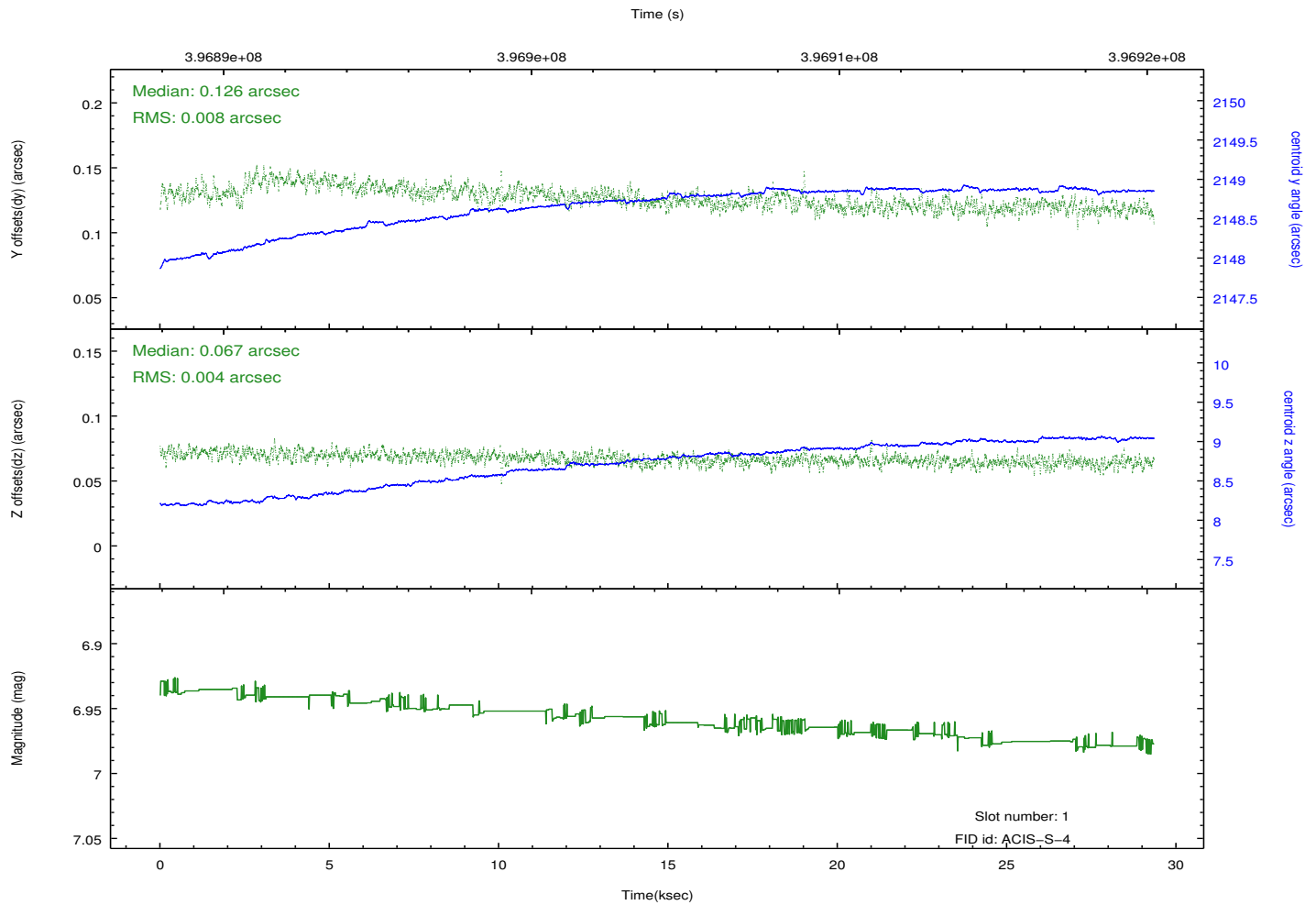
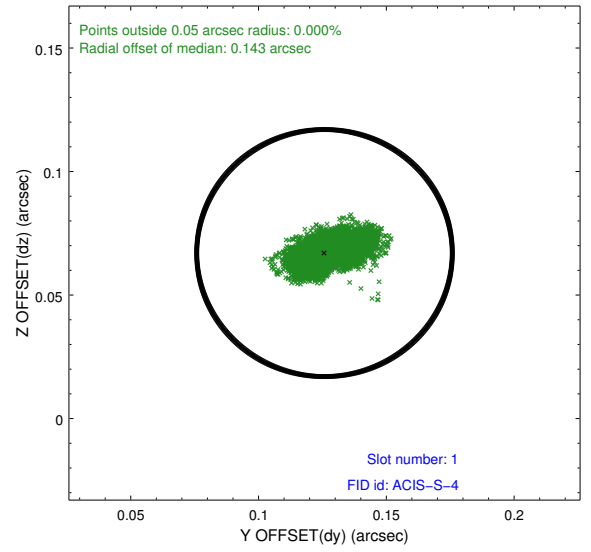
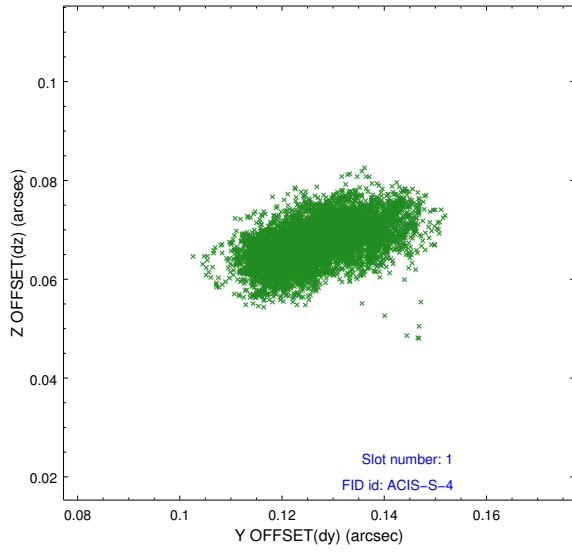


2.5 FID Slots

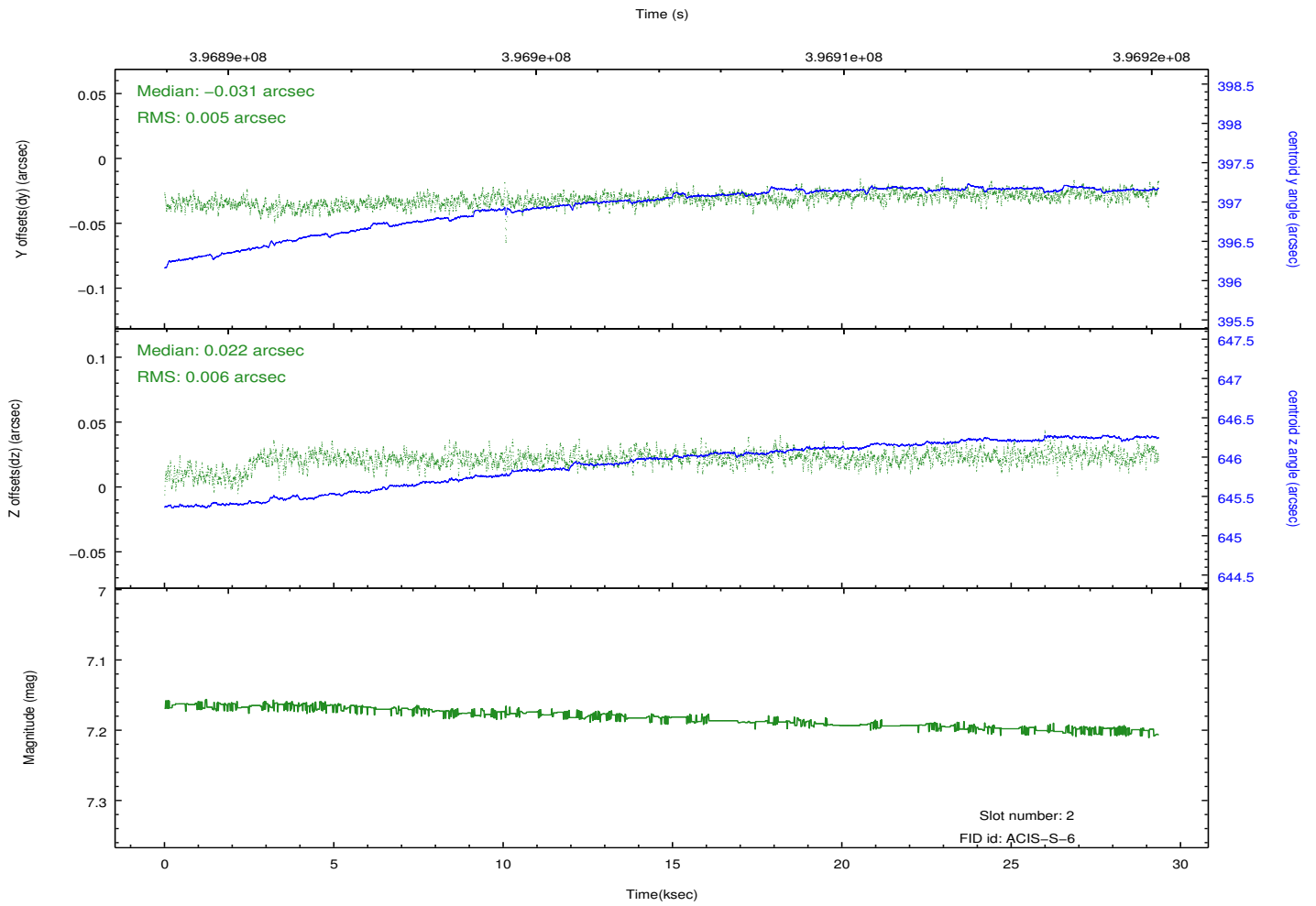
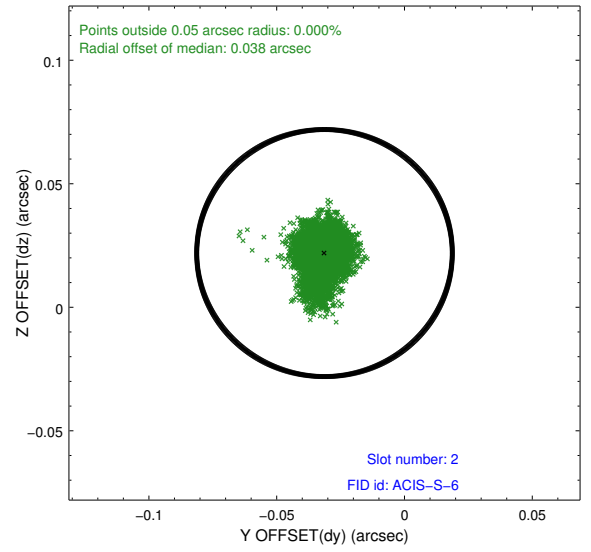
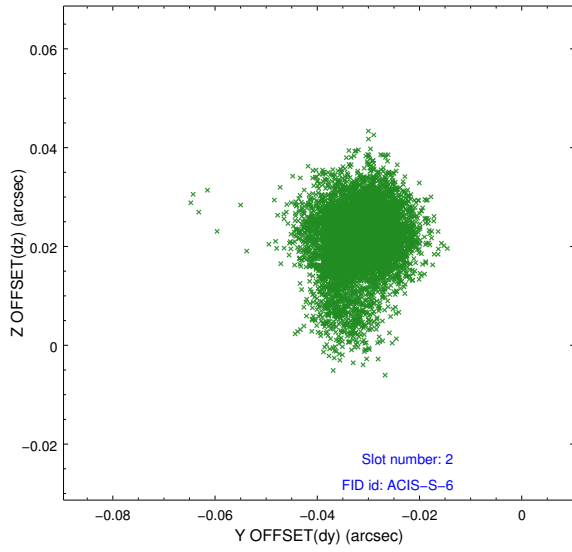
2.5.1 Slot 0



2.5.2 Slot 1

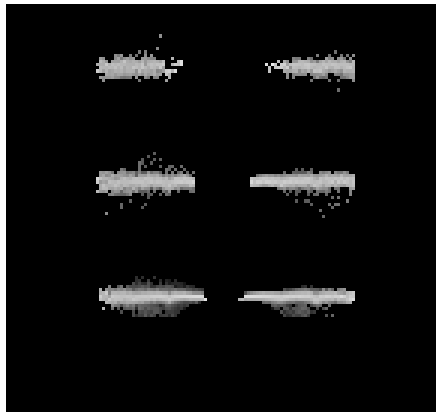


2.5.3 Slot 2

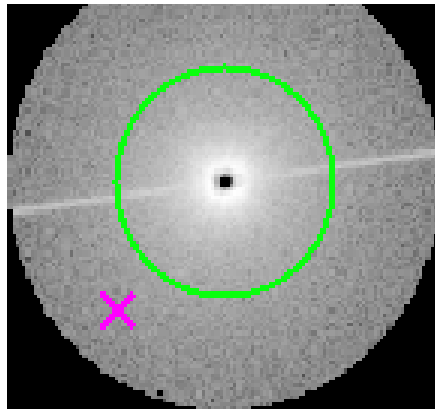


3 Gratings

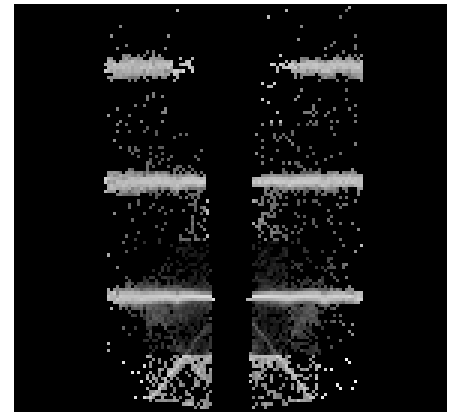
3.1 HEG Arm



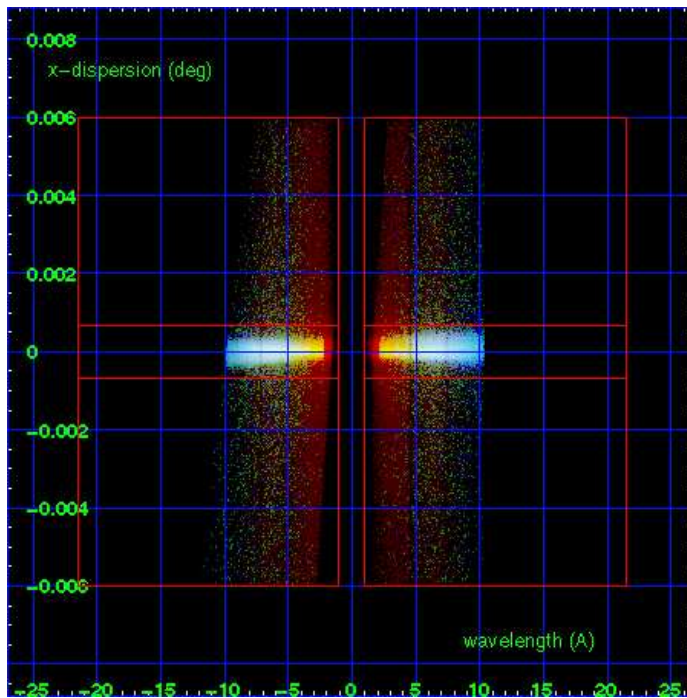
HEG Order Sort 123



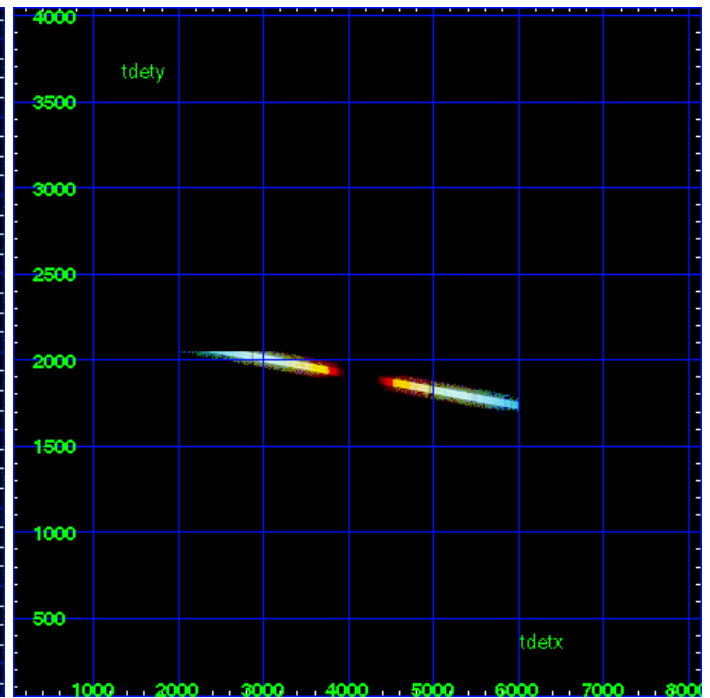
HEG Zero Order



HEG Order Sort ALL

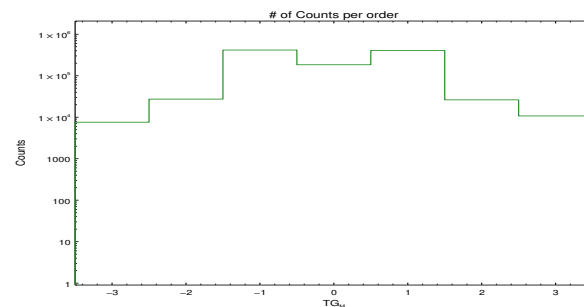


Spot Image HEG

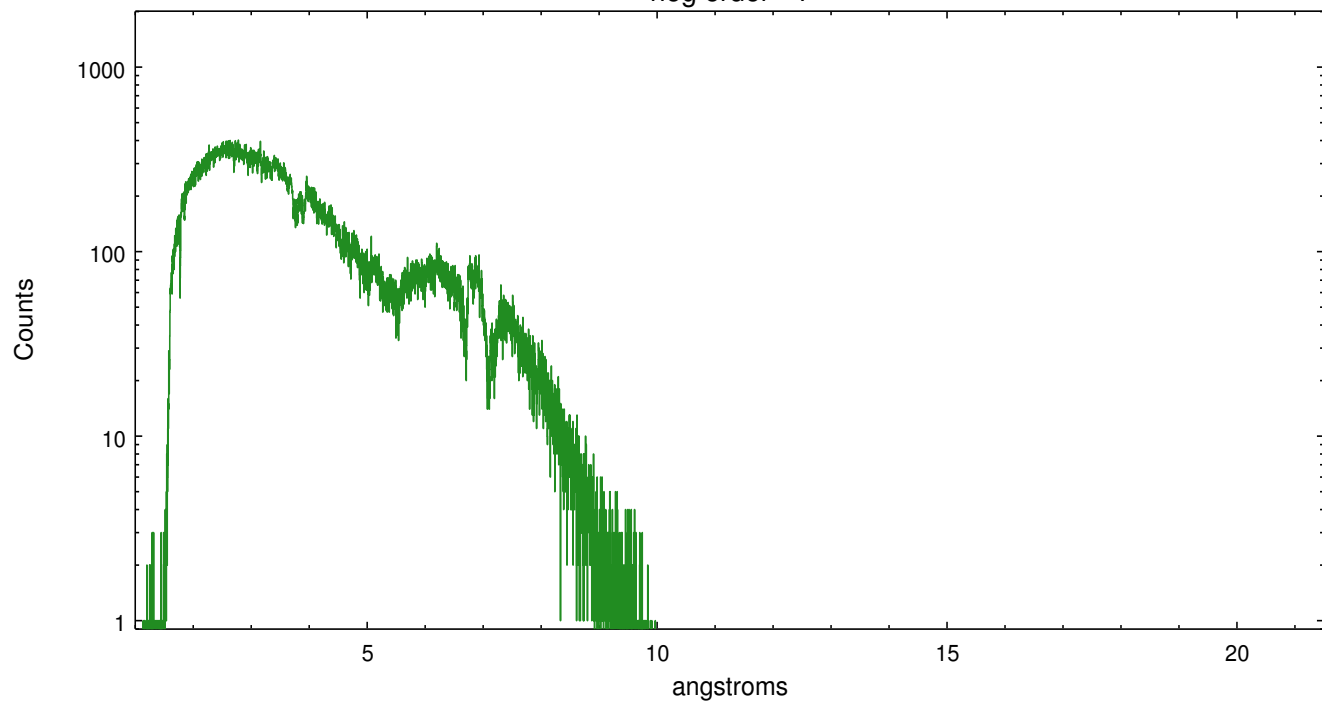


Full Detector HEG

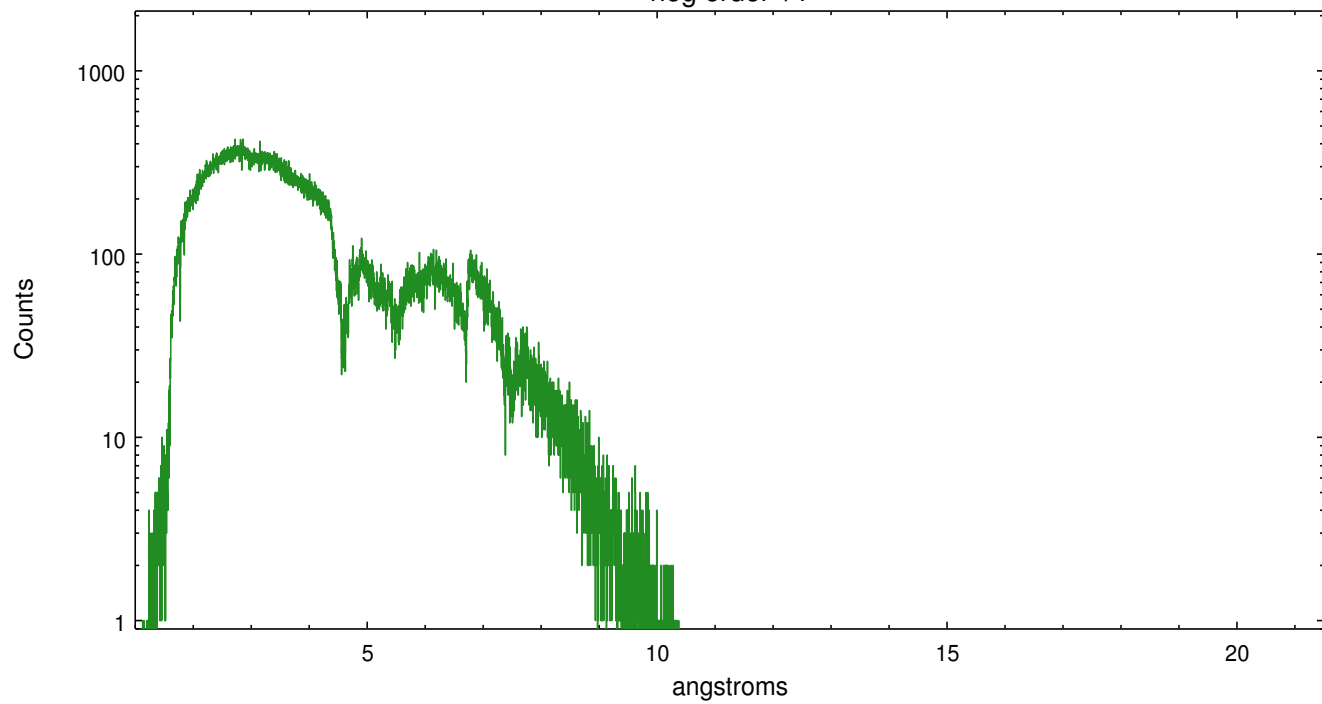
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	7582	27298	415984	183779	407983	26210	10727



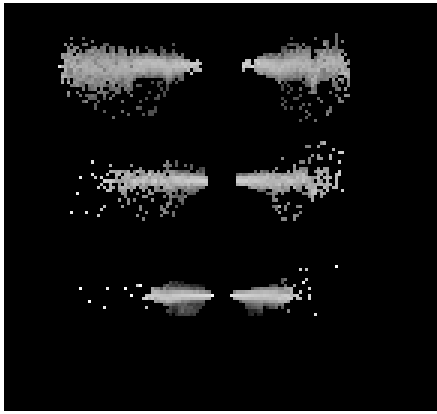
heg order -1



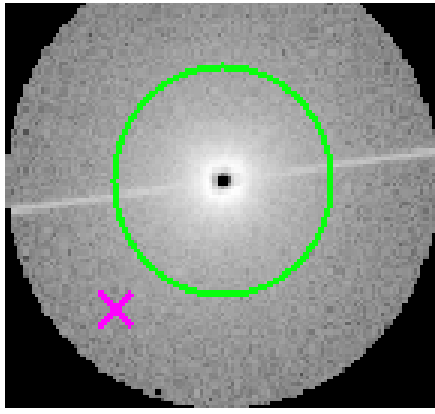
heg order +1



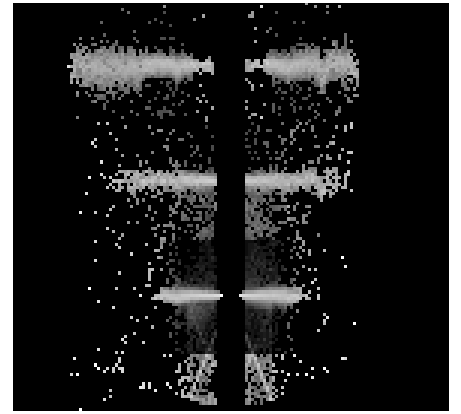
3.2 MEG Arm



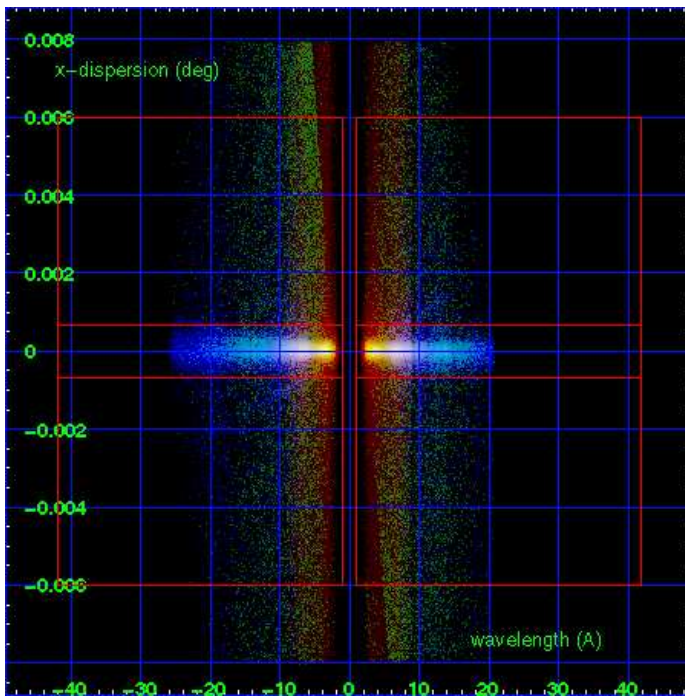
MEG Order Sort 123



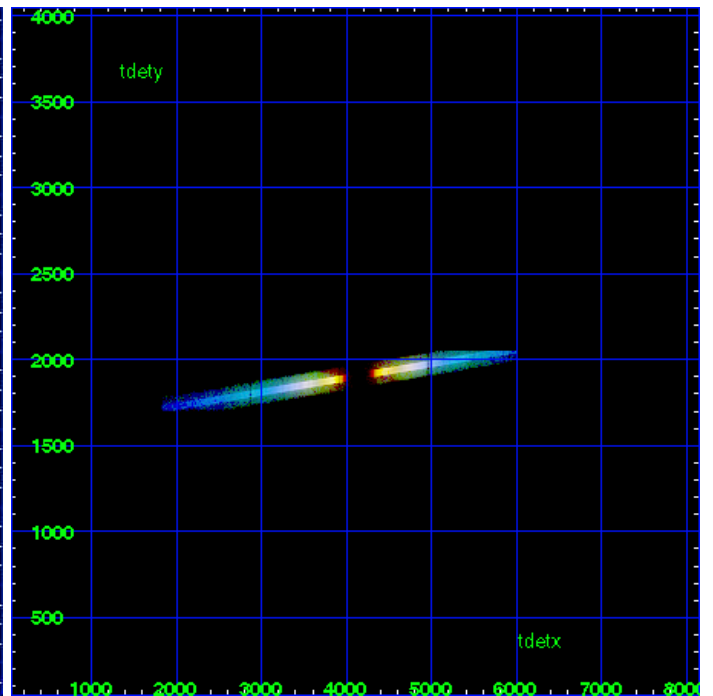
MEG Zero Order



MEG Order Sort ALL

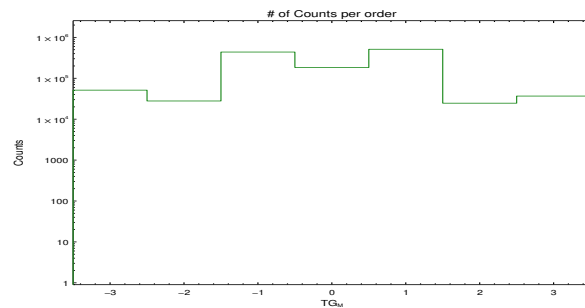


Spot Image MEG

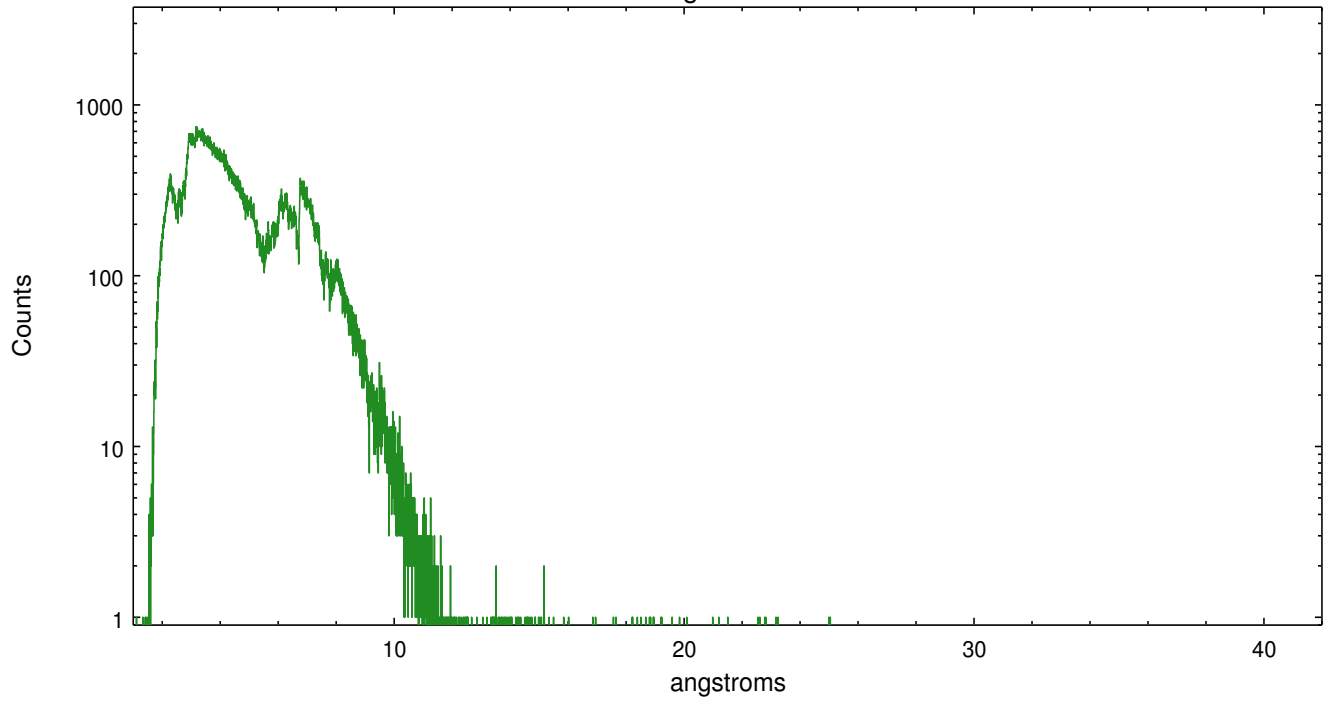


Full Detector MEG

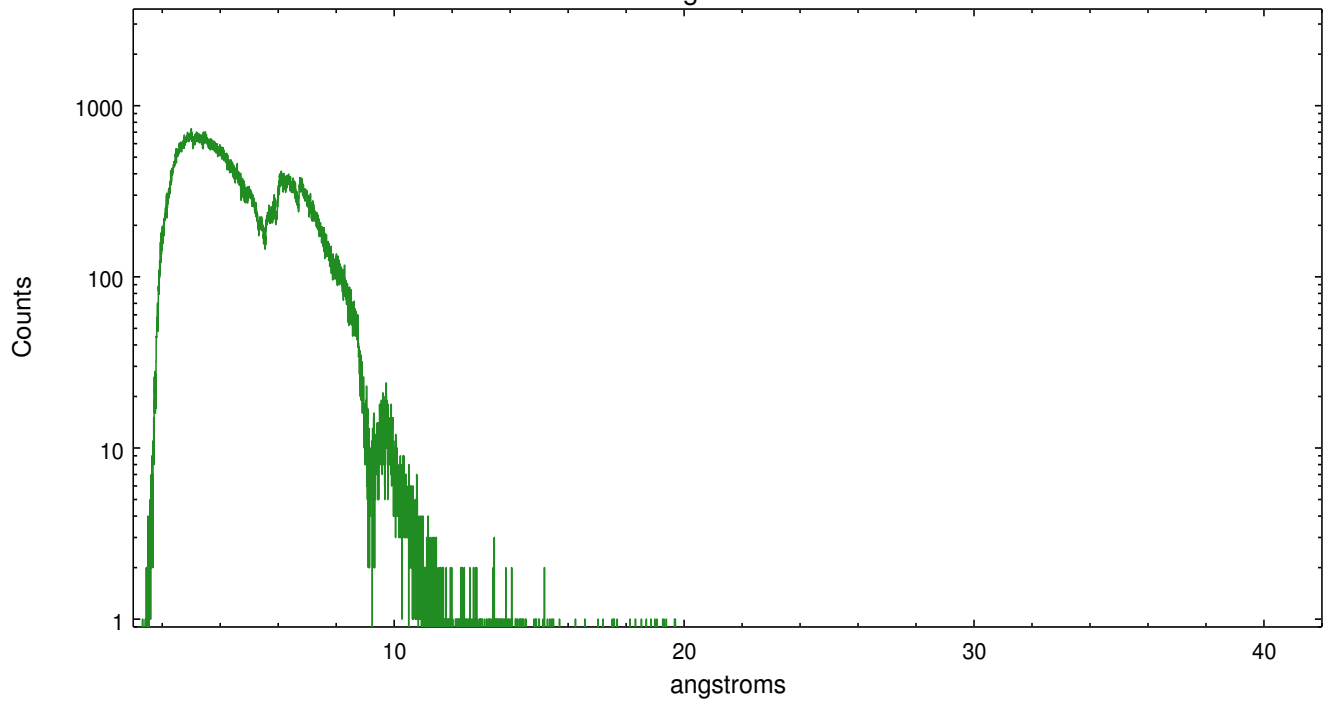
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	51253	27875	437768	183779	511694	24592	36732



meg order -1



meg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.07.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	29.07959971118

A.2 Comments

WARNING: grating spectra are visible in the 'level 1 bad-events' image, meaning that the grating spectra may have CCD pileup (and unreliable fluxes).