

V&V Reference Report

L2 ASCDS Version : 8.1.2

Observation 1198 - L2 Version 4
Chandra X-Ray Center

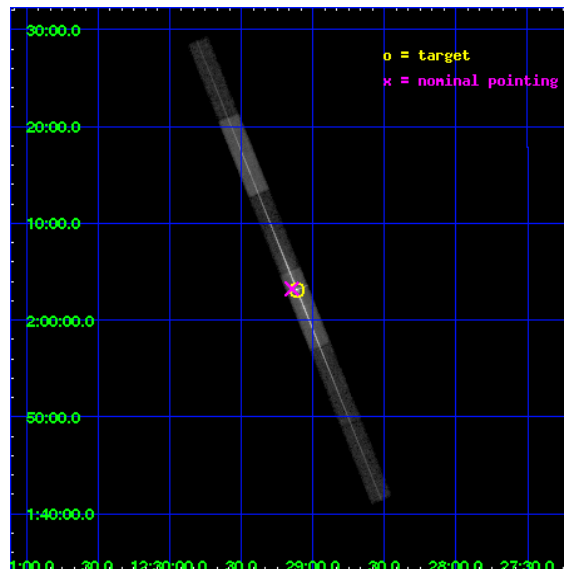
L2 Processing Date : Dec 2 2009

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1 Front

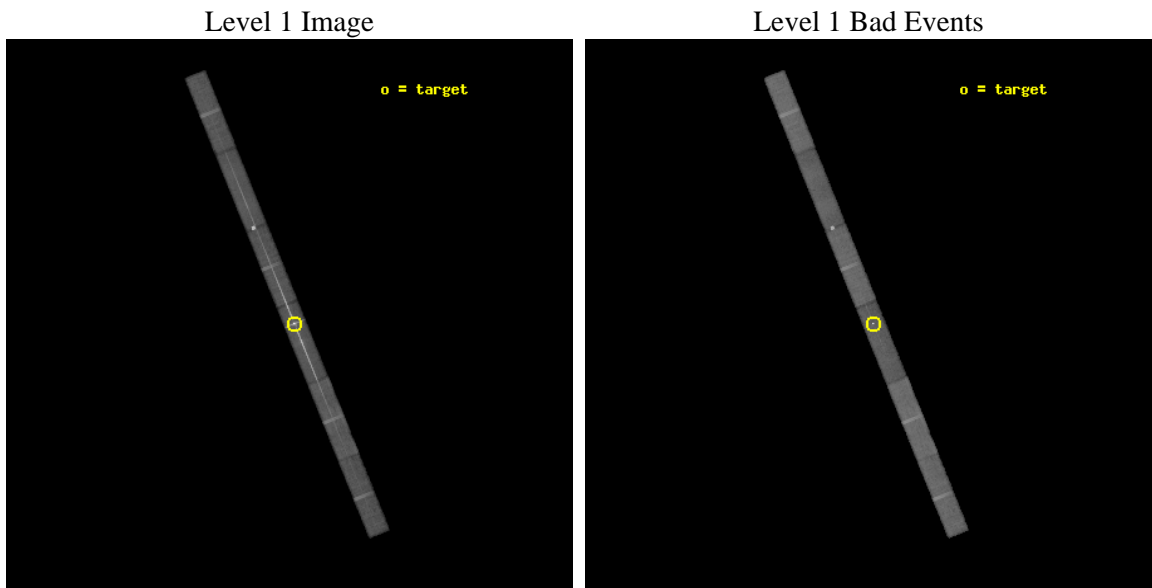
seq_num	780148	Sequence number
obs_id	1198	Observation id
title	IN FLIGHT CALIBRATION OF THE HETGS EFFECTIVE AREA AND CROSS DISPERSION PROFILE	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	3C 273	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.277917	Observer's specified target RA
dec_targ	2.052389	Observer's specified target Dec
ra_nom	187.28649049818	Nominal RA
dec_nom	2.0537241173649	Nominal Dec
roll_nom	67.883850814031	Nominal Roll
revision	4	Processing version of data
ontime	39622.886284307	Sum of GTIs [s]
livetime	38197.762491006	Livetime [s]
ontime4	39622.804204307	Sum of GTIs [s]
ontime5	39622.845244303	Sum of GTIs [s]
ontime6	39622.681084305	Sum of GTIs [s]
ontime7	39622.886284307	Sum of GTIs [s]
ontime8	39622.763164304	Sum of GTIs [s]
ontime9	39621.581114233	Sum of GTIs [s]
l2events	326195	Number of level 2 events



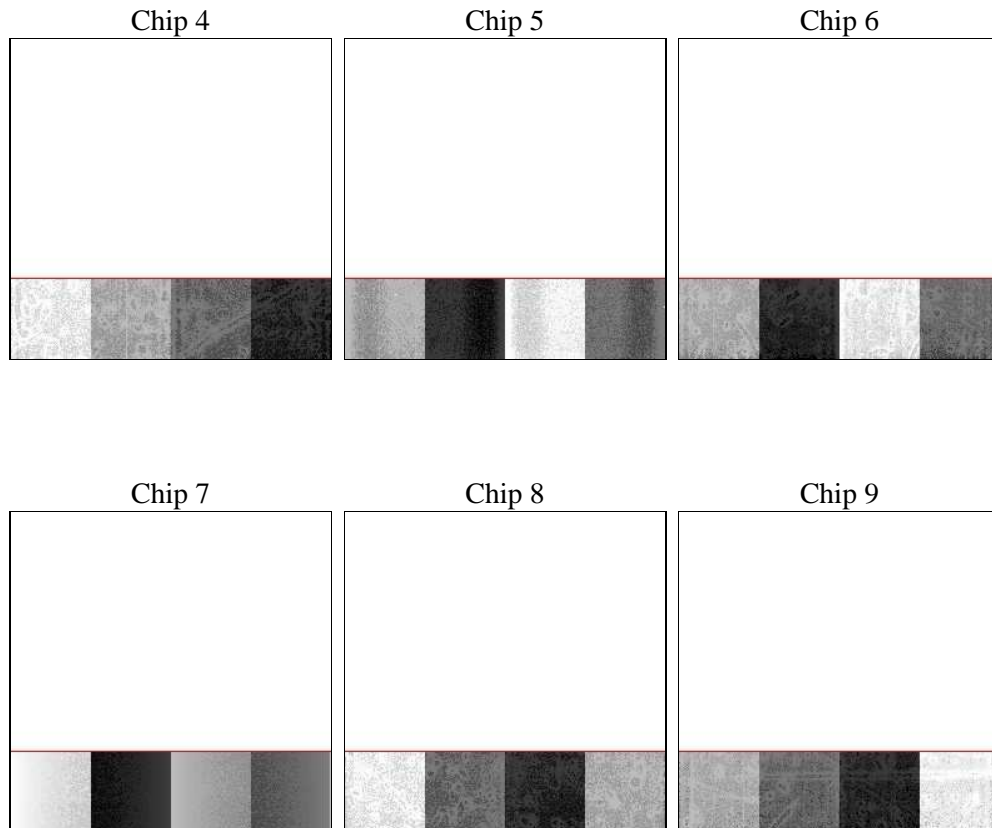
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	40000.000000	Scheduled observation exposure time
ascdsver	8.1.2	ASCDS version number	ontime	39622.886284307	Sum of GTIs [s]
caldbver	4.1.4	 	ontime4	39622.804204307	Sum of GTIs [s]
date	2009-12-02T08:06:54	Date and time of file creation	ontime5	39622.845244303	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	39622.681084305	Sum of GTIs [s]
			ontime7	39622.886284307	Sum of GTIs [s]
			ontime8	39622.763164304	Sum of GTIs [s]
			ontime9	39621.581114233	Sum of GTIs [s]
			l1events	909009	Number of level 1 events

2.1.4 Events

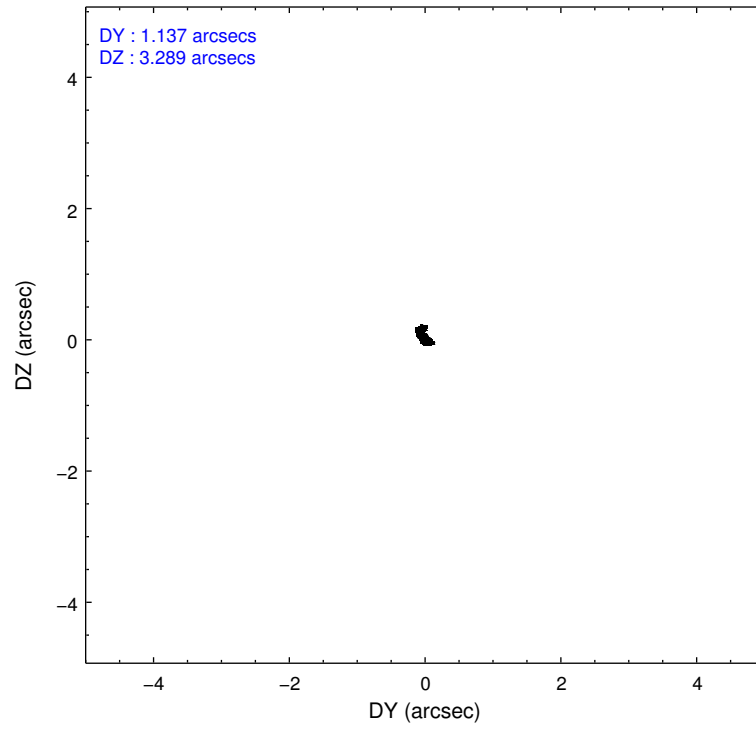
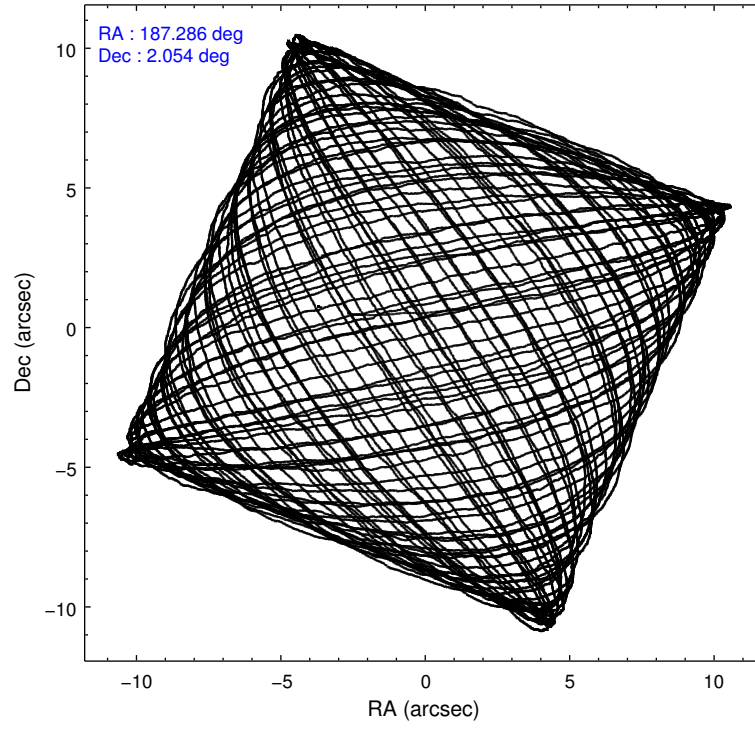
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	113168	145940	141085	267524	141628	99664
rejected events	101983	71866	91751	76428	111037	87869
rejected %	90%	49%	65%	28%	78%	88%

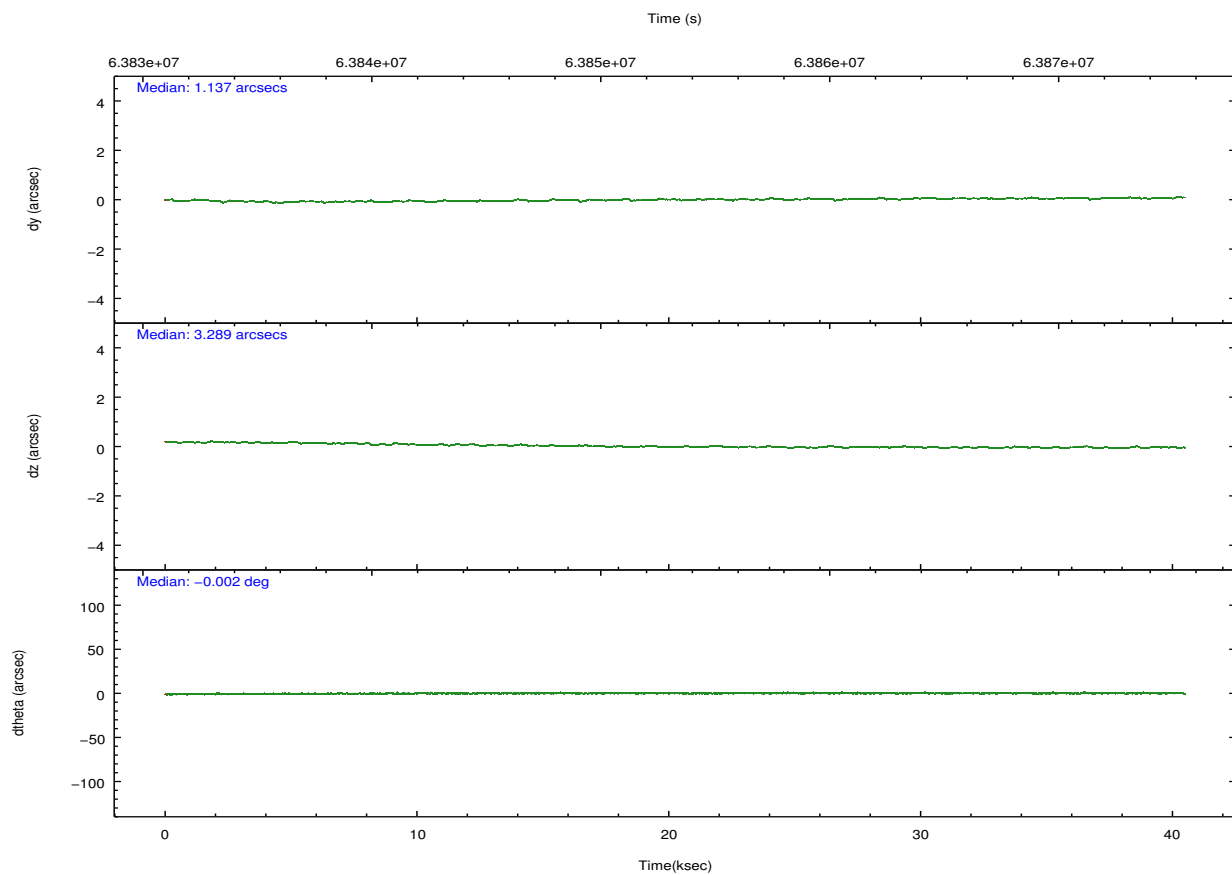
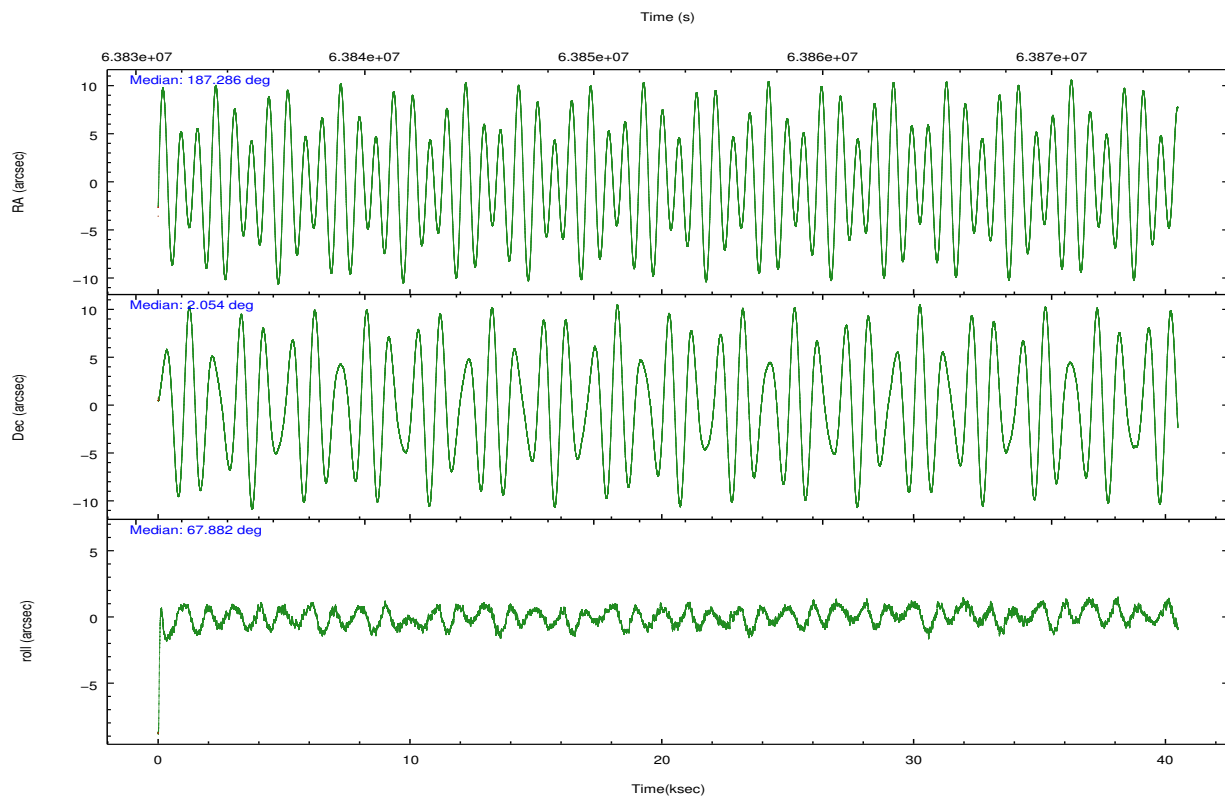
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	4153	14413	36627	36691	13692	4895
	3%	9%	25%	13%	9%	4%
grade 1 events	15	3654	88	839	47	24
	0%	2%	0%	0%	0%	0%
grade 2 events	2676	13799	5495	44305	5373	2320
	2%	9%	3%	16%	3%	2%
grade 3 events	1353	4896	2476	20662	2879	1394
	1%	3%	1%	7%	2%	1%
grade 4 events	1286	5138	2322	19620	2688	1393
	1%	3%	1%	7%	1%	1%
grade 5 events	1774	12249	2218	11367	3041	2536
	1%	8%	1%	4%	2%	2%
grade 6 events	1717	35830	2418	69828	5959	1794
	1%	24%	1%	26%	4%	1%
grade 7 events	100194	55961	89441	64212	107949	85308
	88%	38%	63%	24%	76%	85%

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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	187.290238	187.2864904981835	Subarray requested	CUSTOM	1/4
Pointing Dec	2.026461	2.053724117364907	Subarray start row	1	1
Pointing Roll	67.727090	67.88385081403122	Subarray row count	256	256
Window start time	63072064.184000	63072064.184000	Alternating exposures requested	N	N
Window stop time	64368004.184000	64368004.184000	Primary exposure time	0.000000	1.1
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-182.132523	-182.1344861297048			
SIM translation stage offset (mm)	-8	-7.998036453302973			
Observation start time	63833491.184000	63832725.775484			
Observation start date	2000-01-09T19:30:27	2000-01-09T19:18:45			
Observation end time	63873491.184000	63874035.326983			
Observation end date	2000-01-10T06:37:07	2000-01-10T06:47:15			
Read mode	TIMED	TIMED			

2.3 Aspect



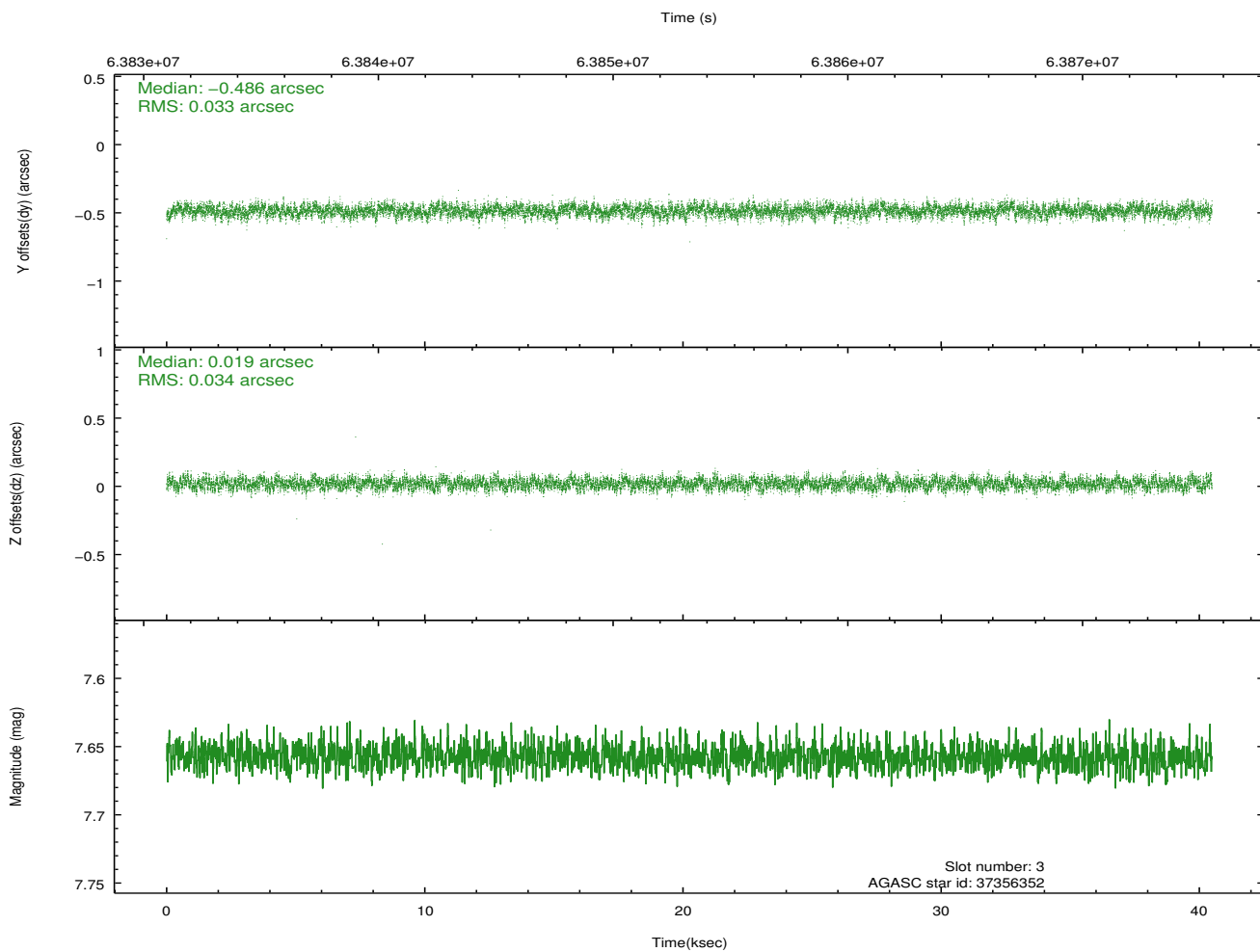
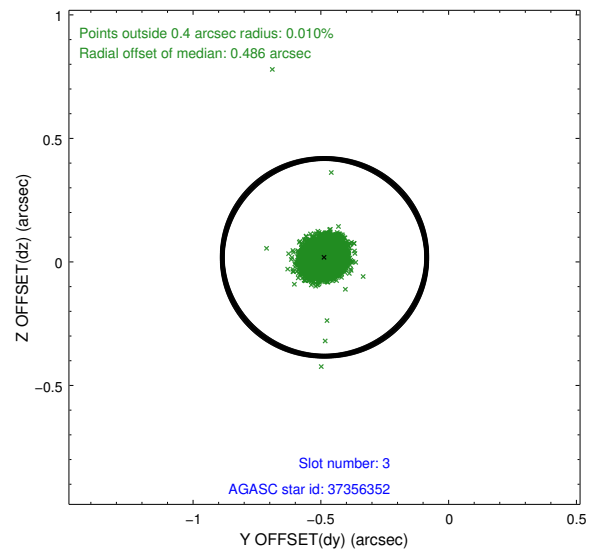
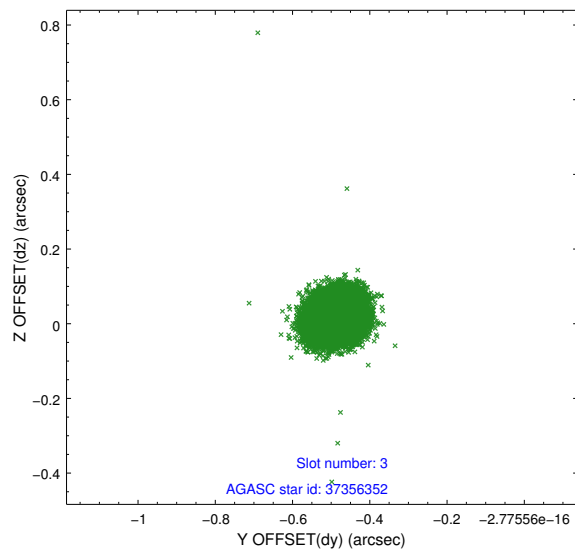


Slot Statistics

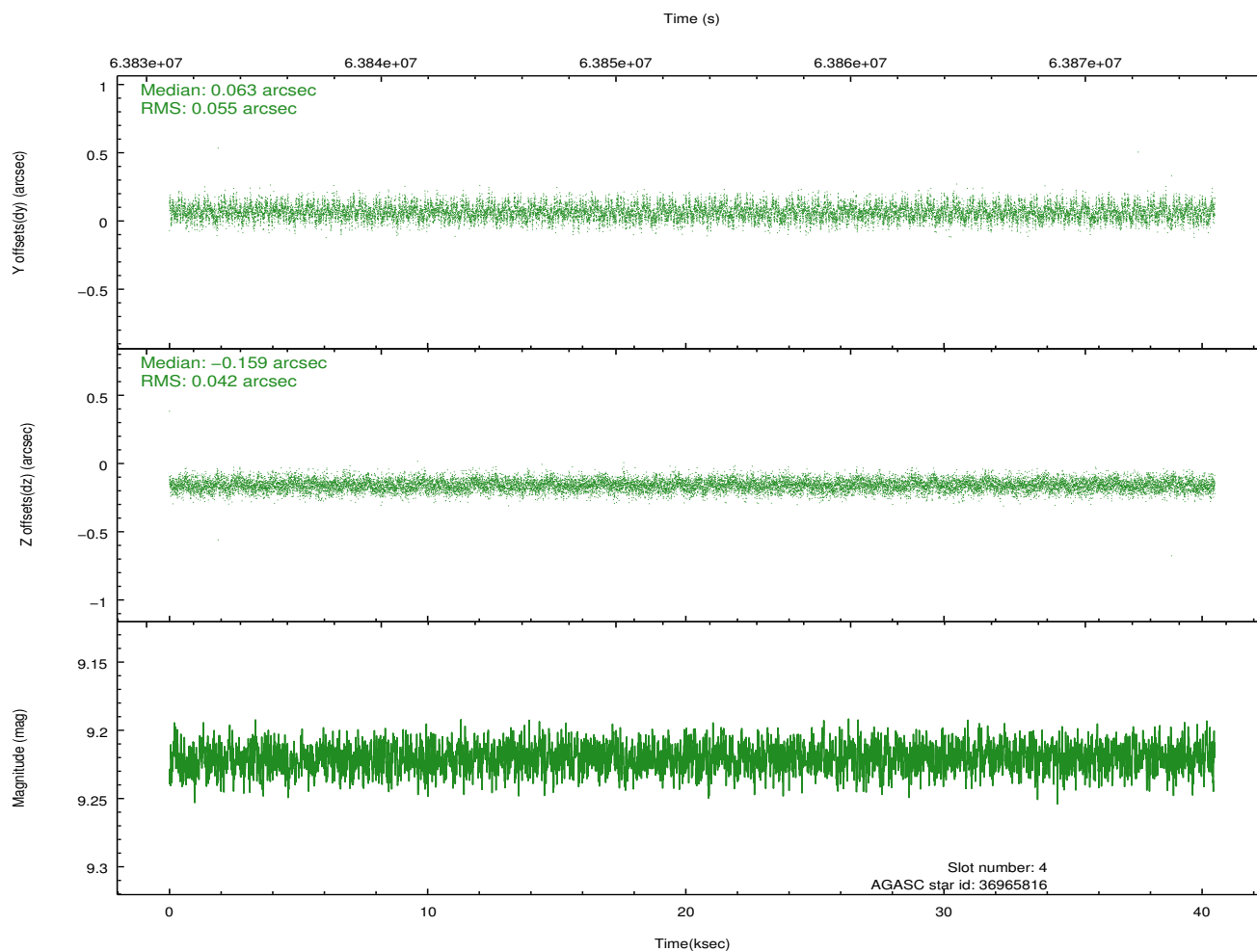
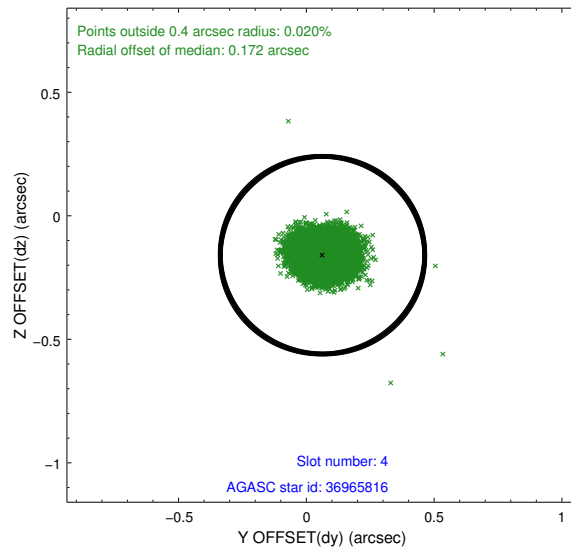
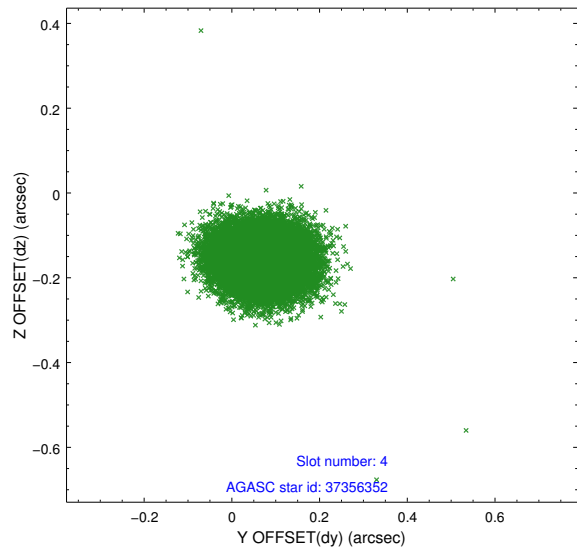
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	9877	-0.045	-0.128	0.007	0.012	0.000000	0.000000	-753.26	-1889.25
1	FID	ACIS-S-4	7.18	9876	0.079	0.056	0.006	0.010	0.000000	0.000000	2160.20	19.27
2	FID	ACIS-S-5	7.23	9876	-0.066	0.080	0.007	0.012	0.000000	0.000000	-1806.04	13.13
3	GUIDE	37356352	7.66	19748	-0.486	0.019	0.050	0.080	187.433784	2.618460	2167.61	330.21
4	GUIDE	36965816	9.22	19743	0.063	-0.159	0.073	0.119	186.823353	1.771455	-1485.70	1206.68
5	GUIDE	36965296	9.09	19741	0.085	-0.059	0.066	0.109	186.926292	1.837429	-1125.74	954.00
6	GUIDE	36963280	9.62	19742	0.276	-0.112	0.099	0.161	186.985307	1.456816	-2313.12	238.25
7	GUIDE	37883040	10.03	19727	0.059	0.310	0.096	0.155	187.575516	1.280402	-2096.01	-1967.85

2.4 Star Slots

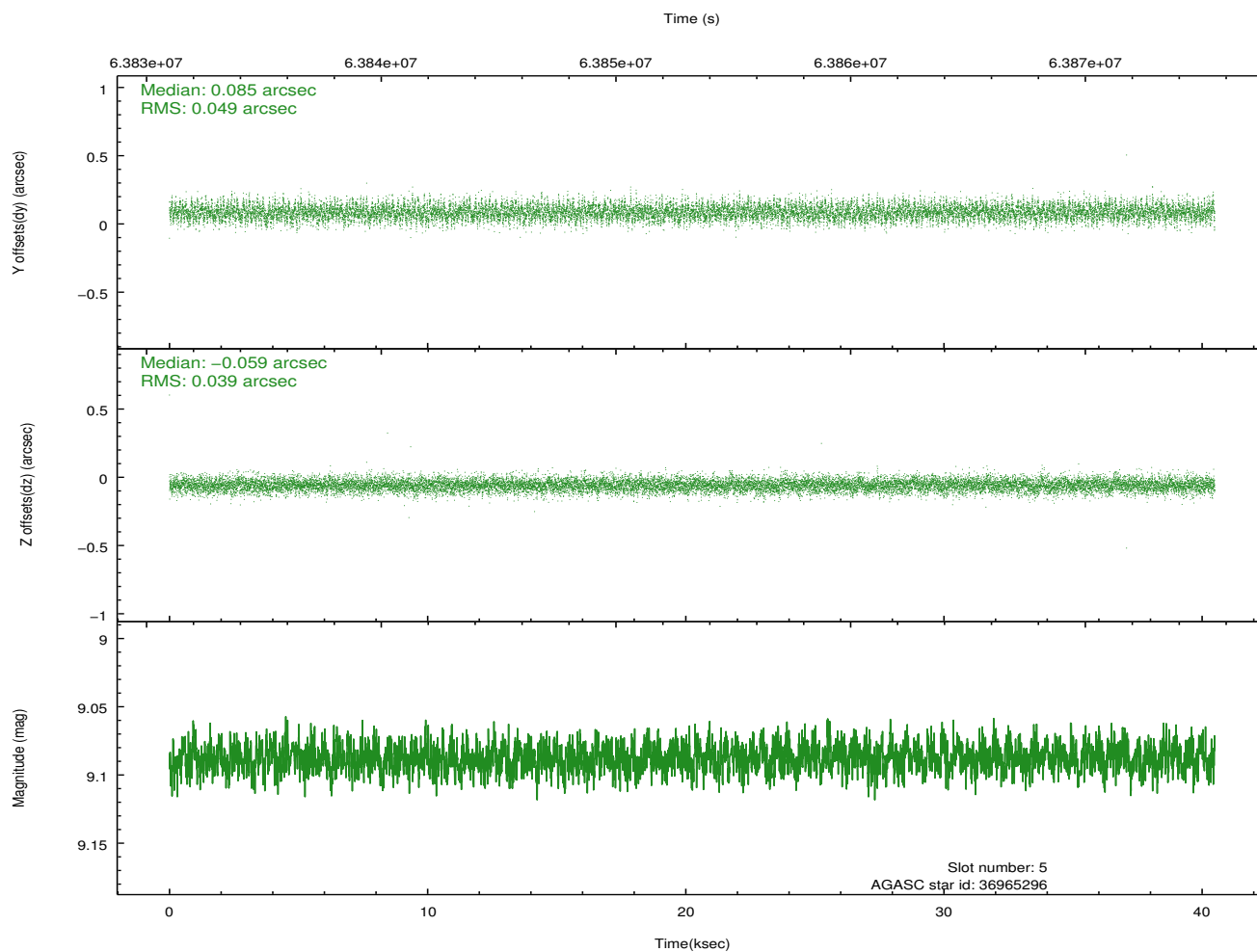
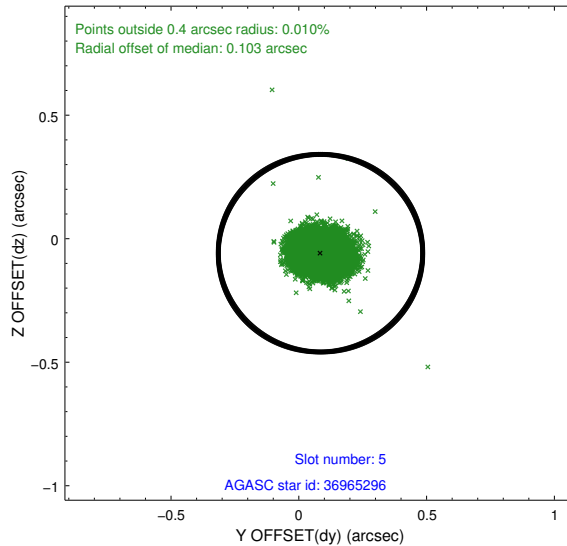
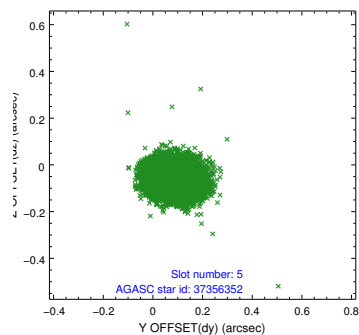
2.4.1 Slot 3



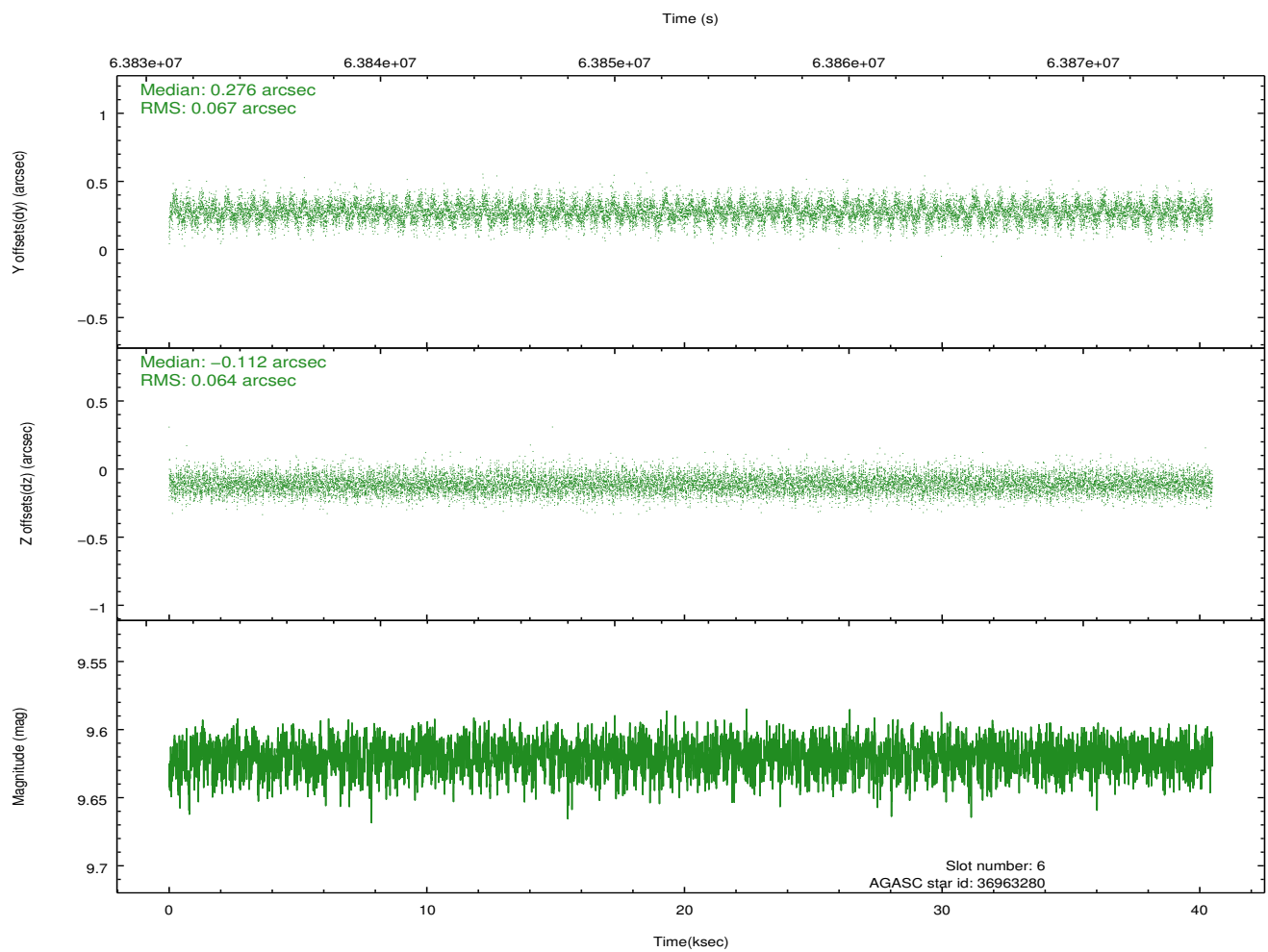
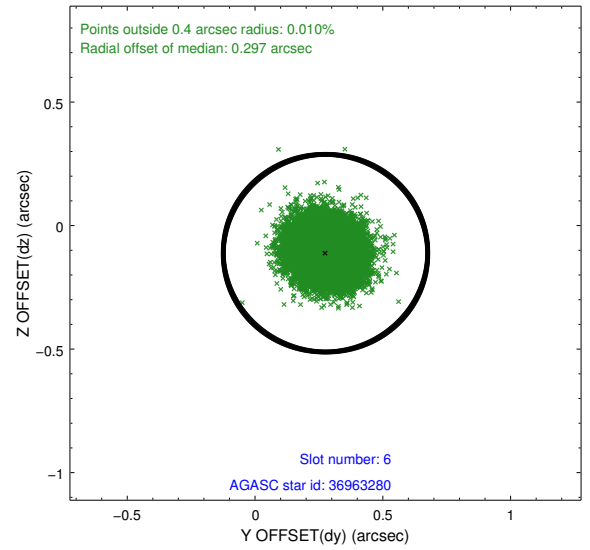
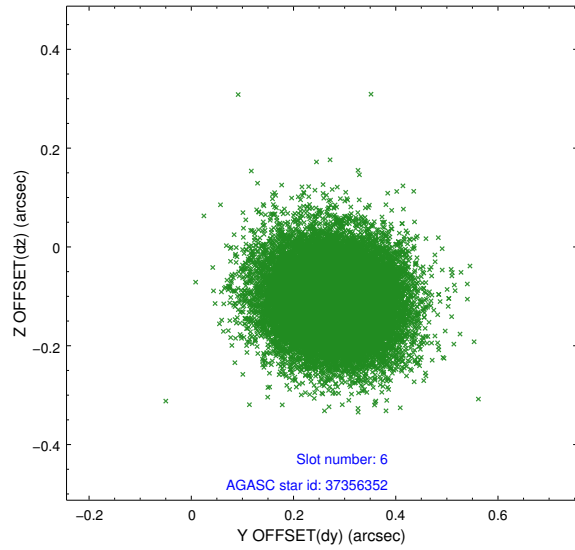
2.4.2 Slot 4



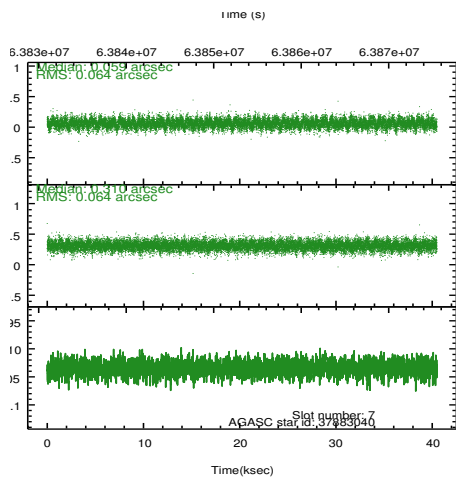
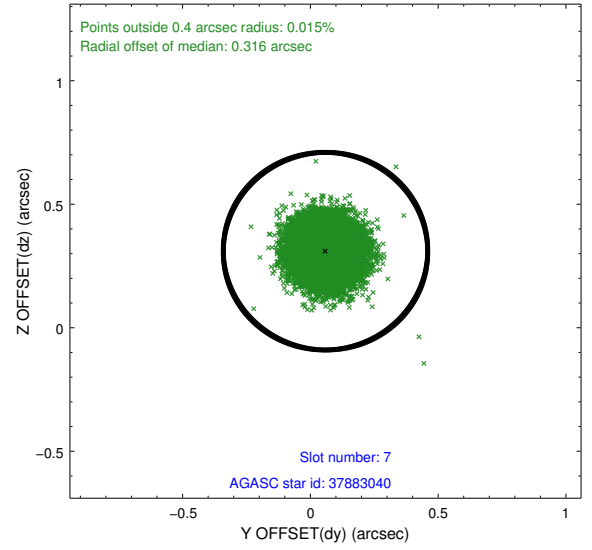
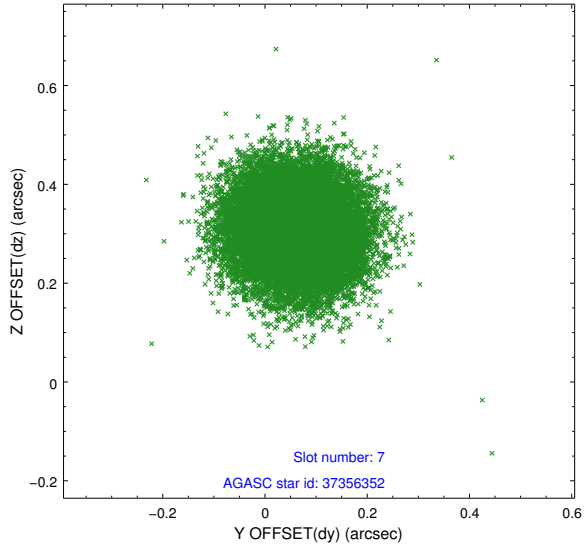
2.4.3 Slot 5



2.4.4 Slot 6

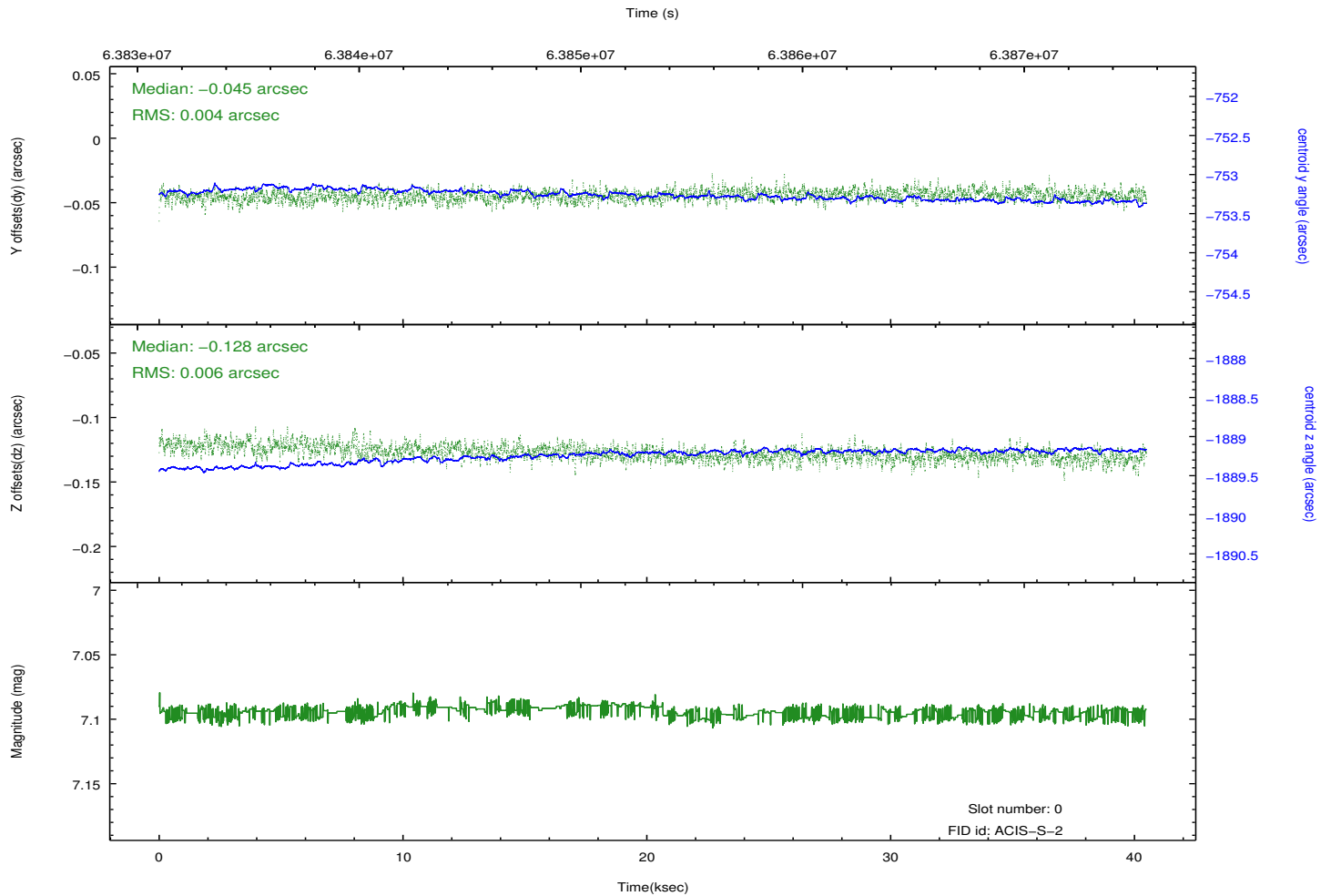
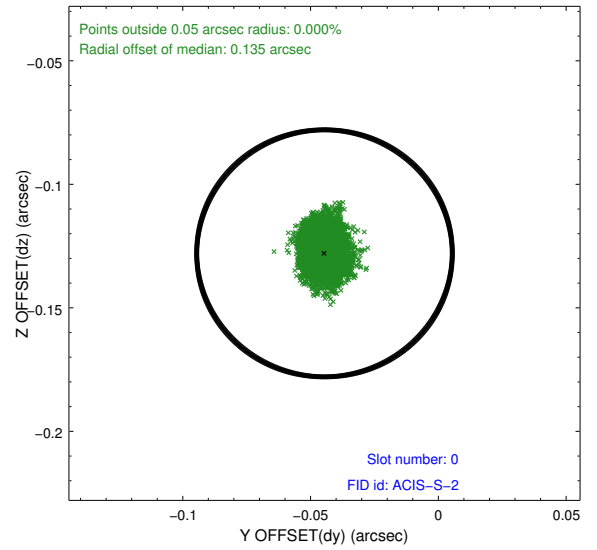
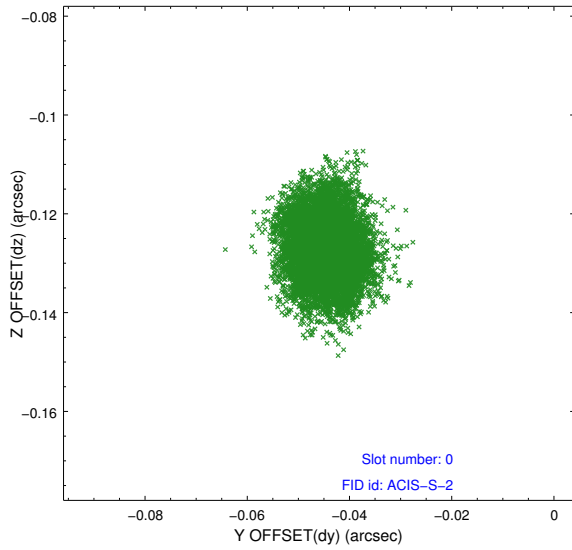


2.4.5 Slot 7

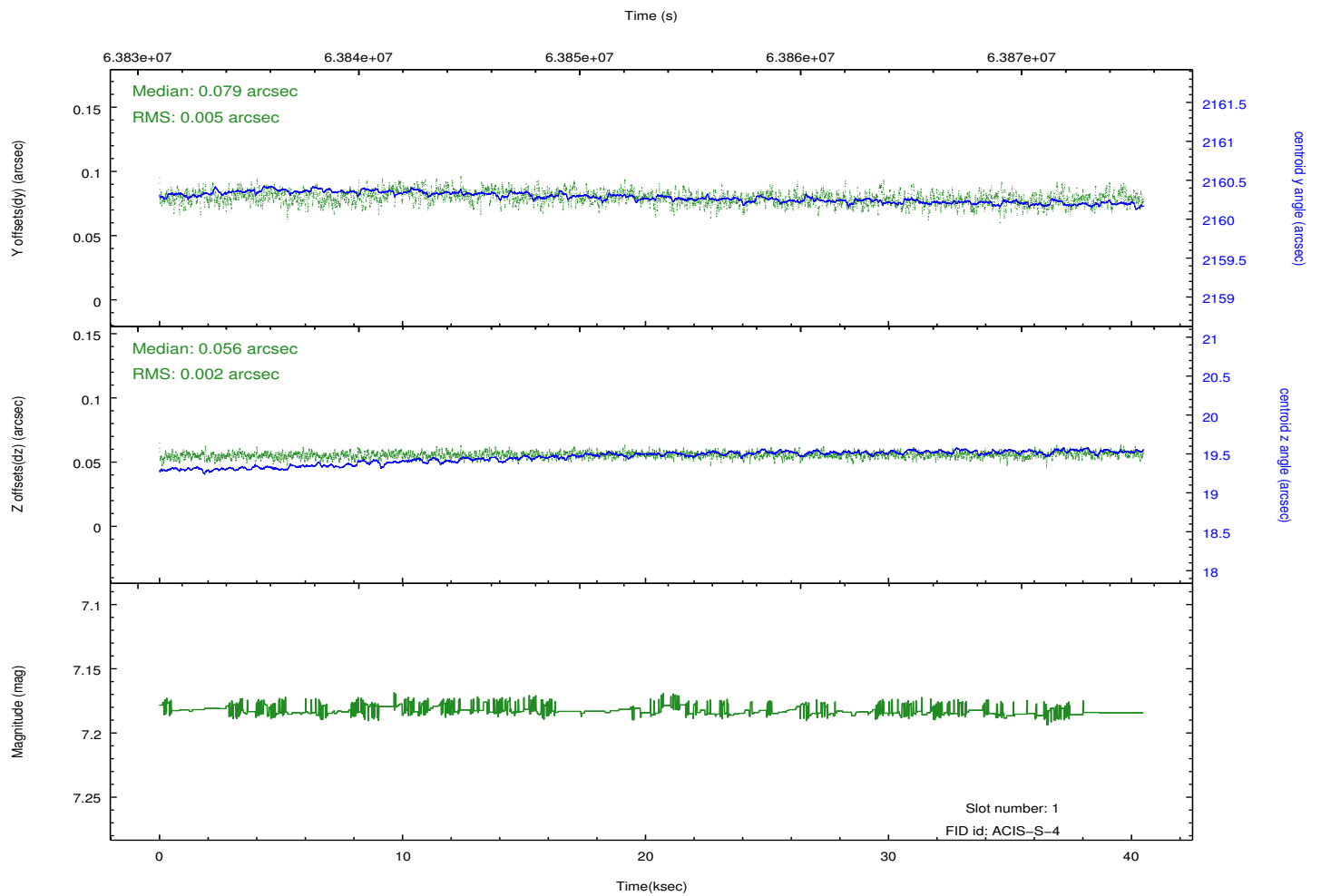
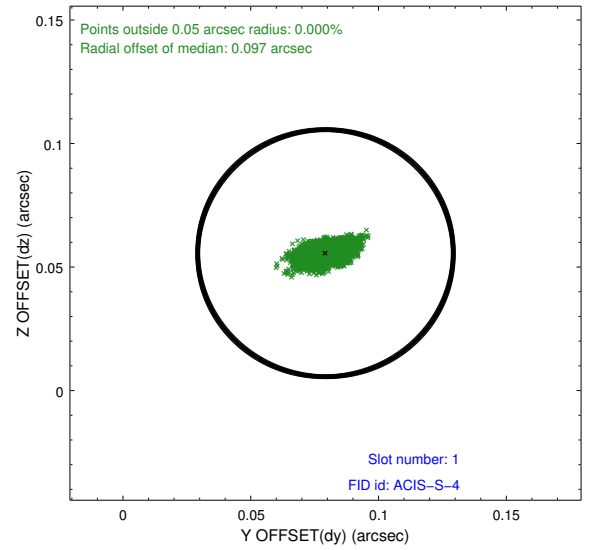
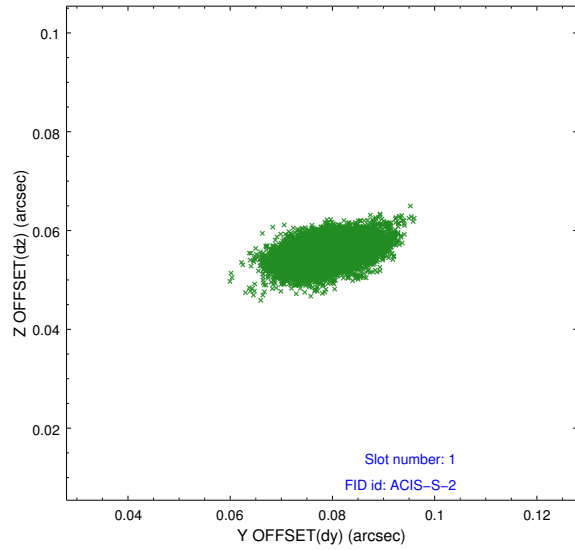


2.5 FID Slots

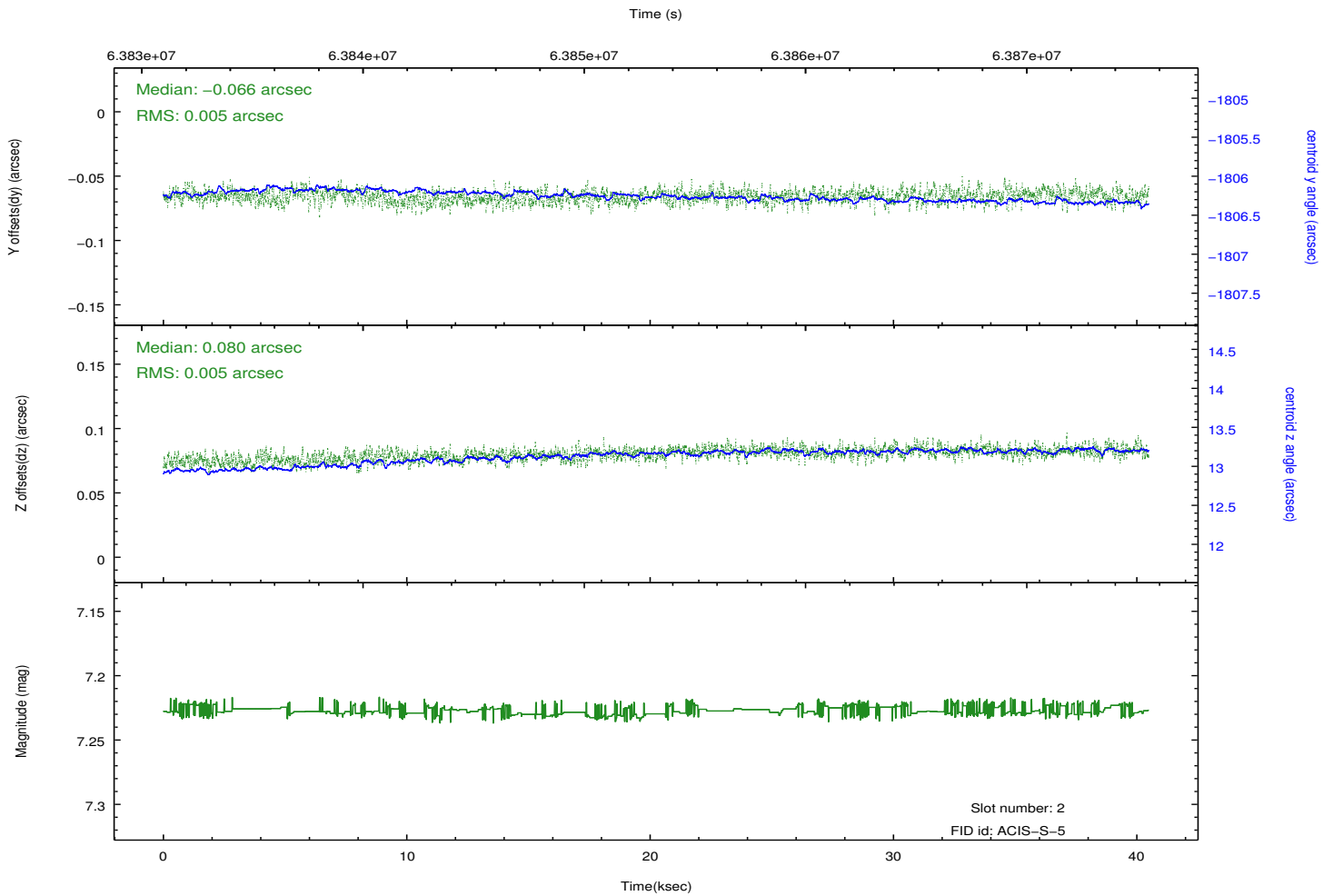
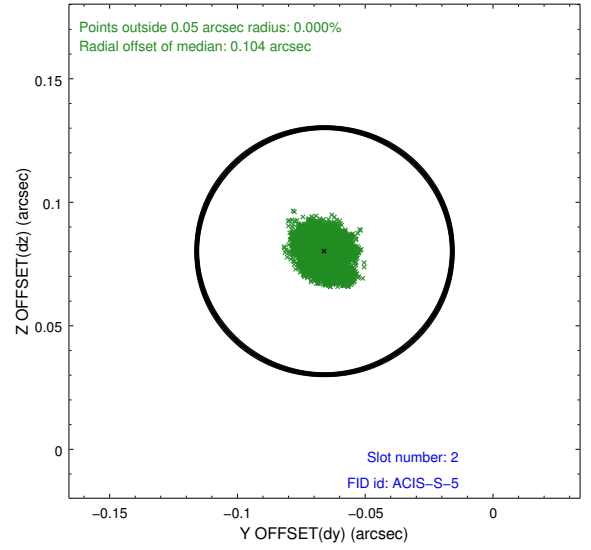
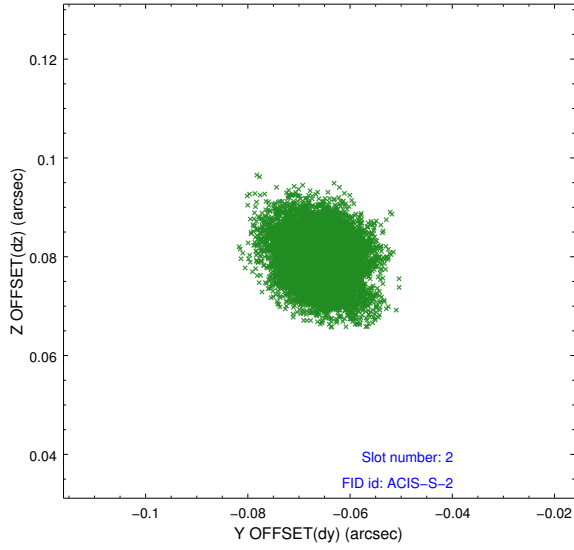
2.5.1 Slot 0



2.5.2 Slot 1



2.5.3 Slot 2

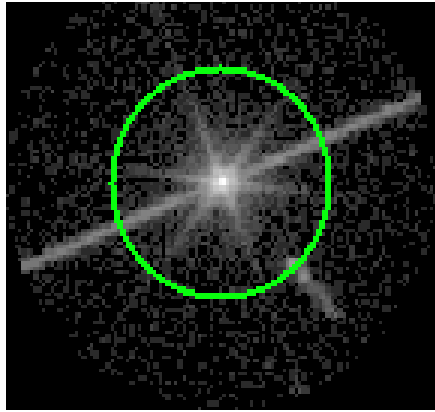


3 Gratings

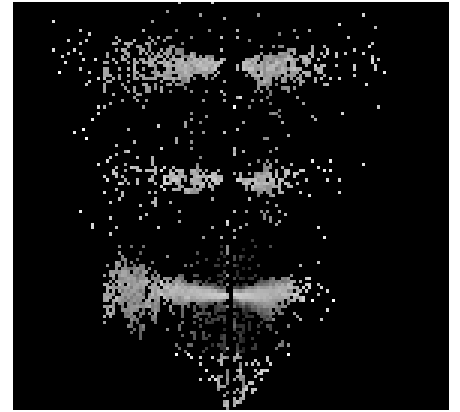
3.1 LETG Arm



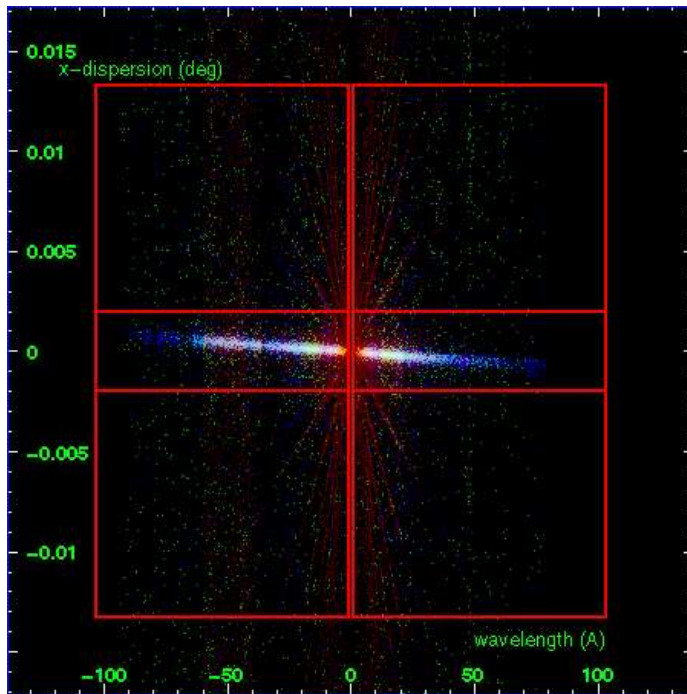
LETG Order Sort 123



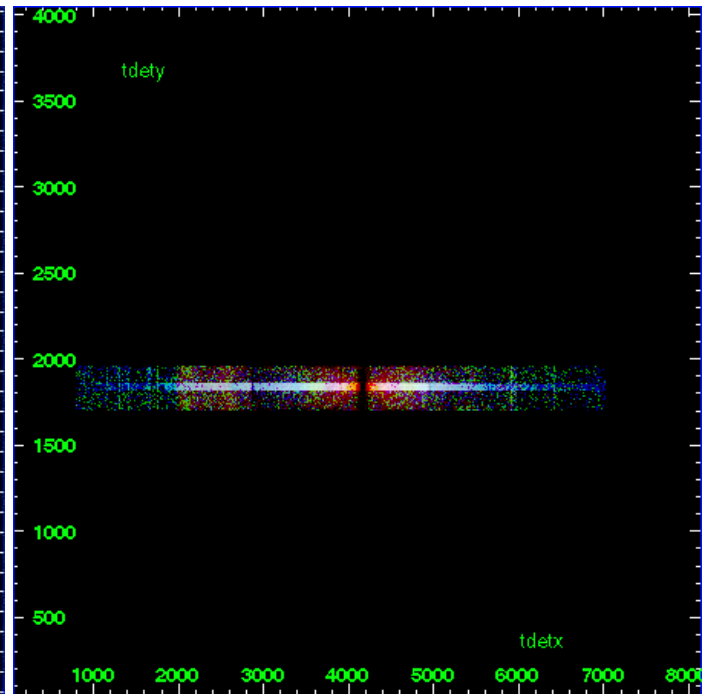
LETG Zero Order



LETG Order Sort ALL

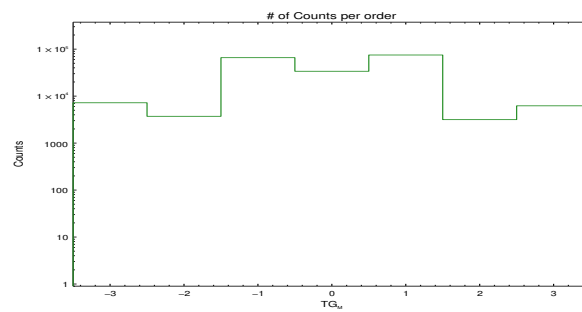


Spot Image LETG

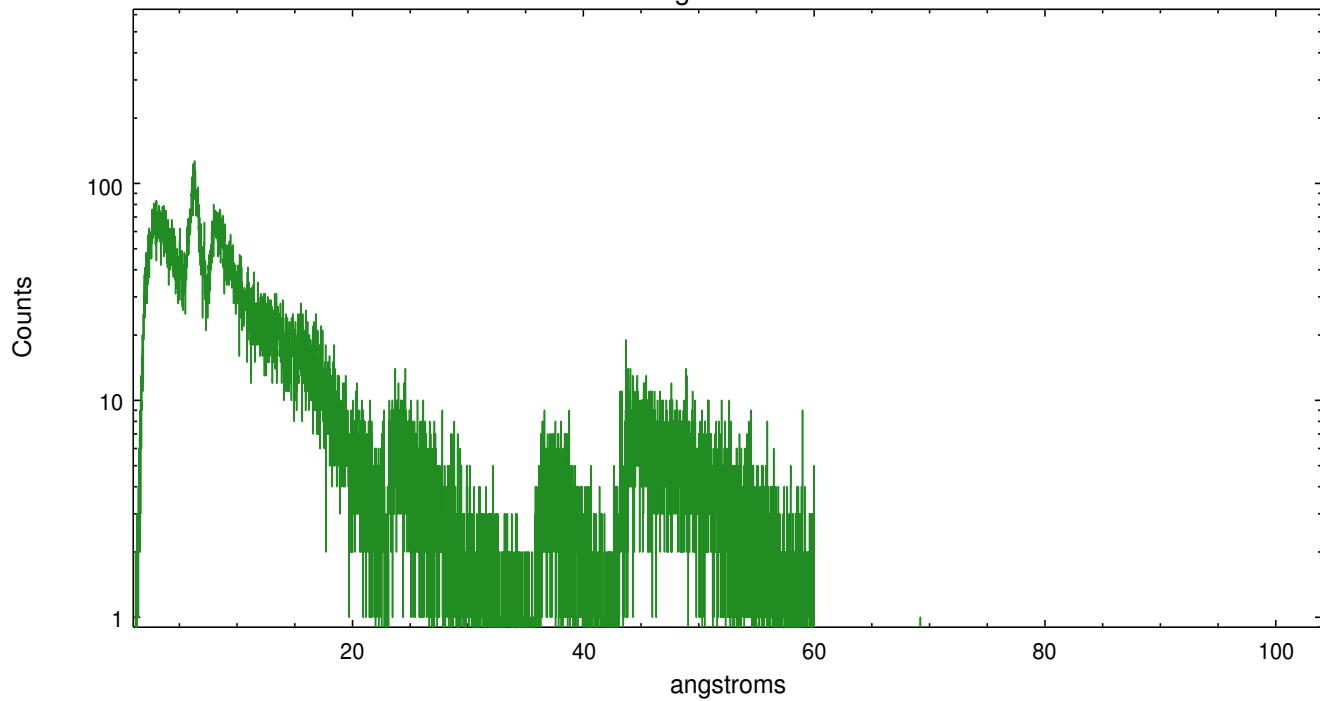


Full Detector LETG

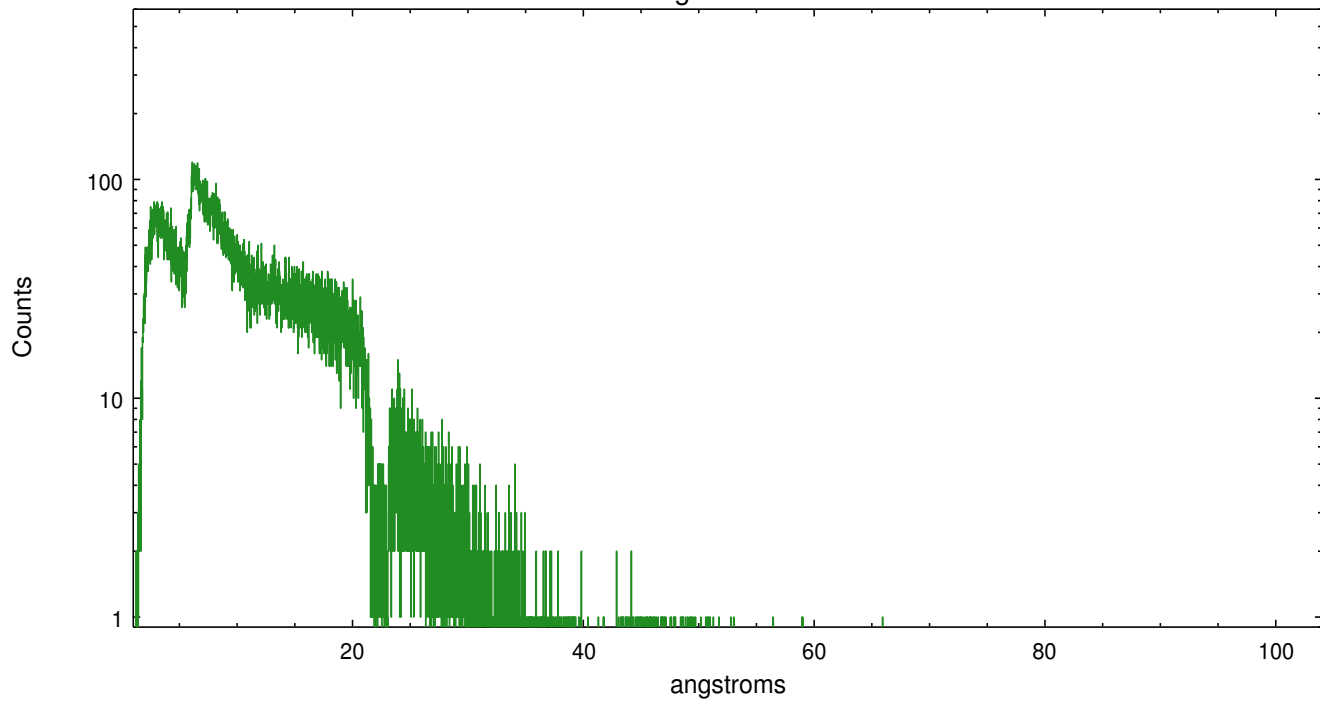
	order	order	order	order	order	order	order
	-3	-2	-1	0	1	2	3
Events	7217	3715	65834	33794	75027	3157	6216



leg order -1



leg order +1



A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2009.12.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.622

A.2 Comments