

V&V Reference Report

L2 ASCDS Version : 10.6

Observation 19867 - L2 Version 1
Chandra X-Ray Center

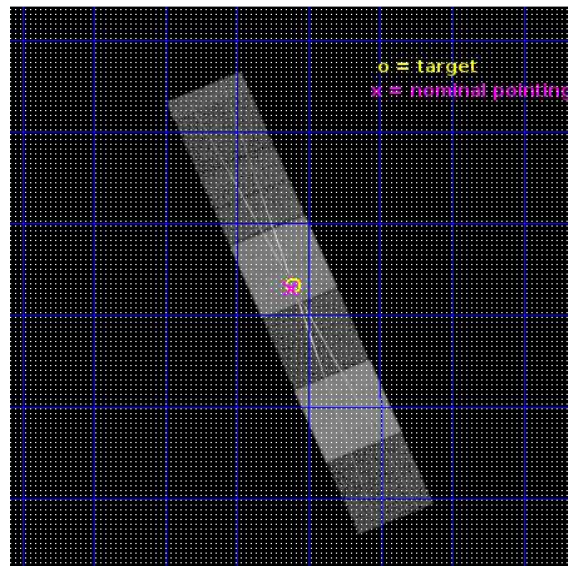
L2 Processing Date : Jun 27 2017

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1 Front

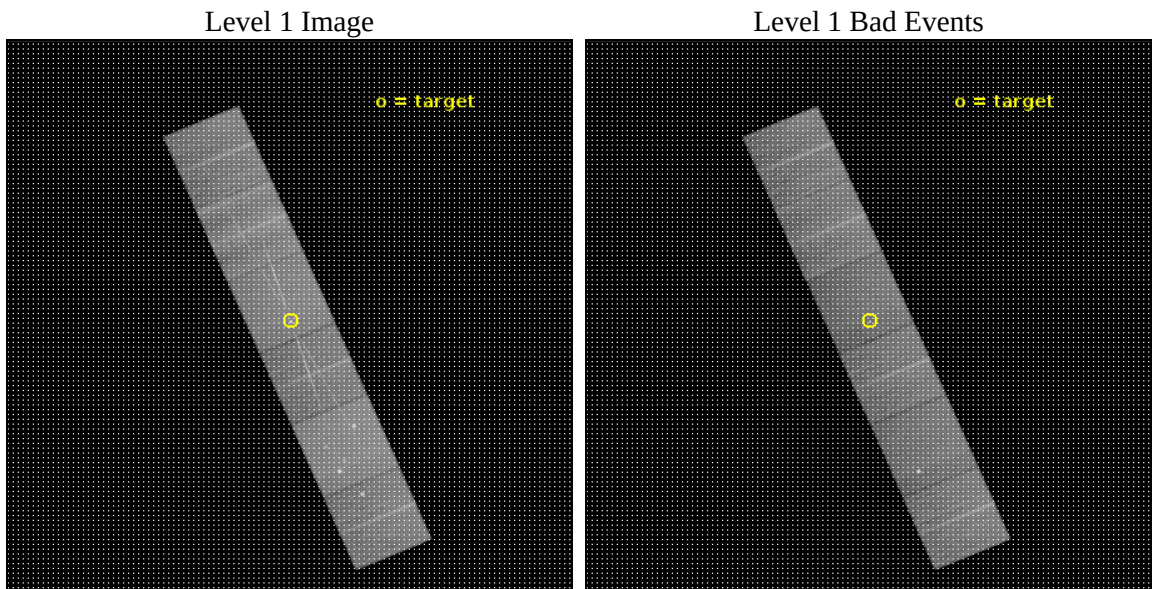
seq_num	790307	Sequence number
obs_id	19867	Observation id
title	AO-18 Cross-Calibration Observations of 3C273	Proposal title
observer	CXC Calibration	Principal investigator
object	3C273	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.277917	Observer's specified target RA [deg]
dec_targ	2.052389	Observer's specified target Dec [deg]
ra_nom	187.28032971719	Nominal RA [deg]
dec_nom	2.0479355810605	Nominal Dec [deg]
roll_nom	246.81676093826	Nominal Roll [deg]
revision	1	Processing version of data
ontime	27251.200406075	Sum of GTIs [s]
livetime	26906.12929783	Livetime [s]
ontime4	27251.200406075	Sum of GTIs [s]
ontime5	27251.200406075	Sum of GTIs [s]
ontime6	27251.200406075	Sum of GTIs [s]
ontime7	27251.200406075	Sum of GTIs [s]
ontime8	27251.200406075	Sum of GTIs [s]
ontime9	27251.200406075	Sum of GTIs [s]
l2events	376444	Number of level 2 events



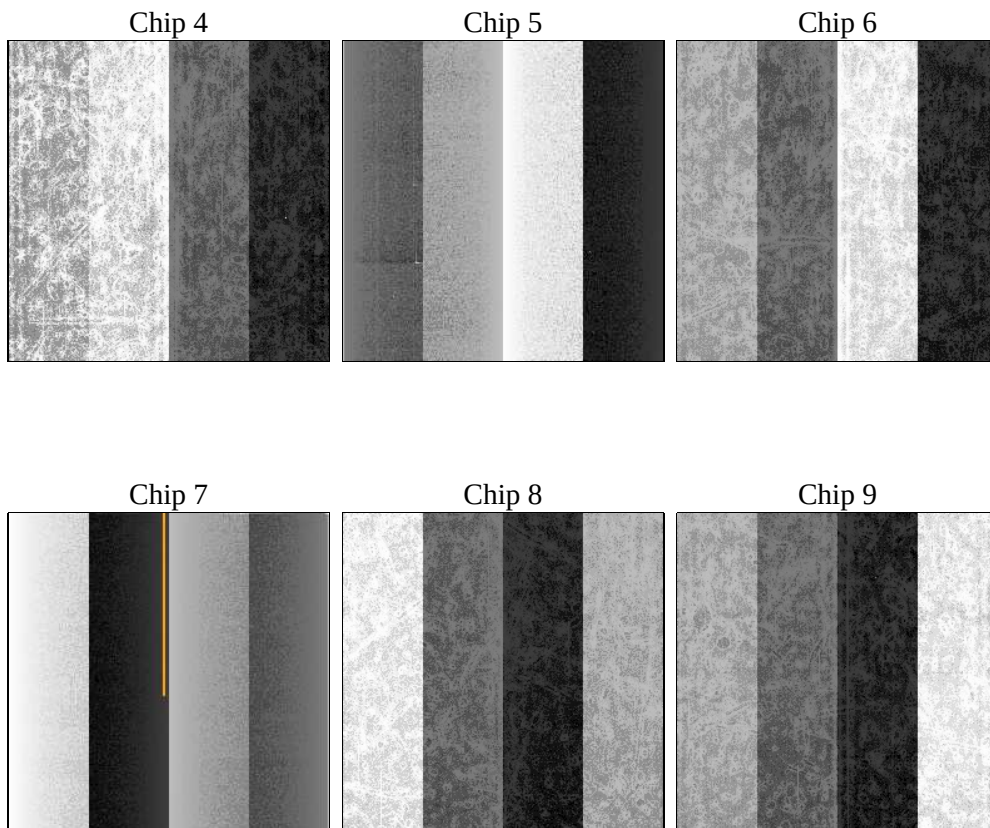
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	27300.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	27251.200406075	Sum of GTIs [s]
caldsver	4.7.5	 	ontime4	27251.200406075	Sum of GTIs [s]
date	2017-06-27T14:52:20	Date and time of file creation	ontime5	27251.200406075	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	27251.200406075	Sum of GTIs [s]
			ontime7	27251.200406075	Sum of GTIs [s]
			ontime8	27251.200406075	Sum of GTIs [s]
			ontime9	27251.200406075	Sum of GTIs [s]
			l1events	1482804	Number of level 1 events
			tgmethod	FINDZO	Method used to create src1a file
			src1a_pos	(4114.04, 4128.27)	src1a sky pixel position

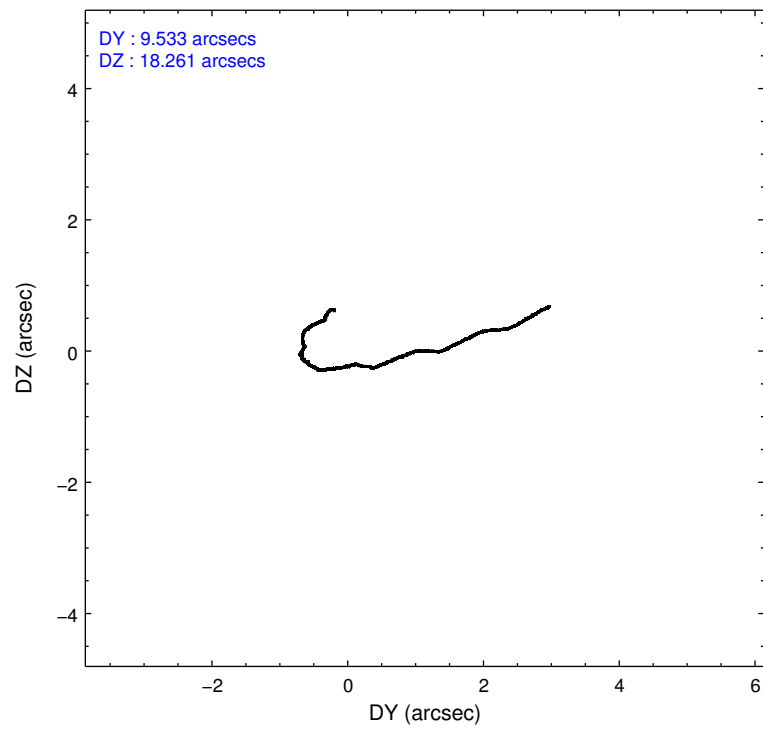
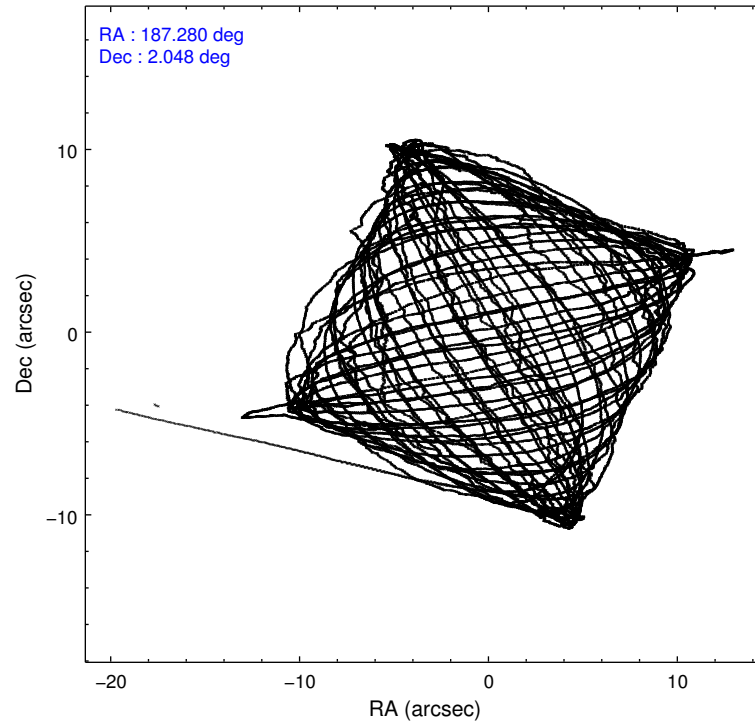
2.1.4 Events

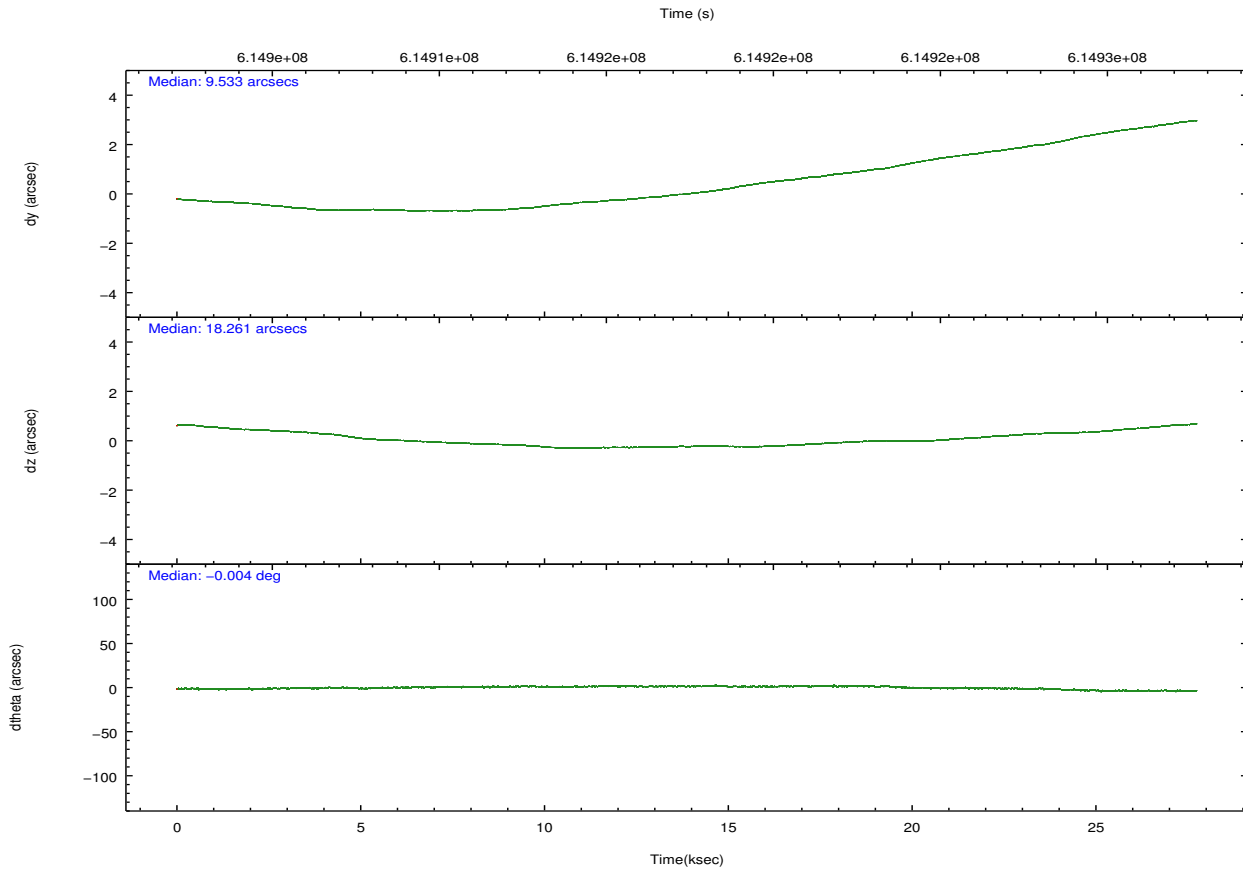
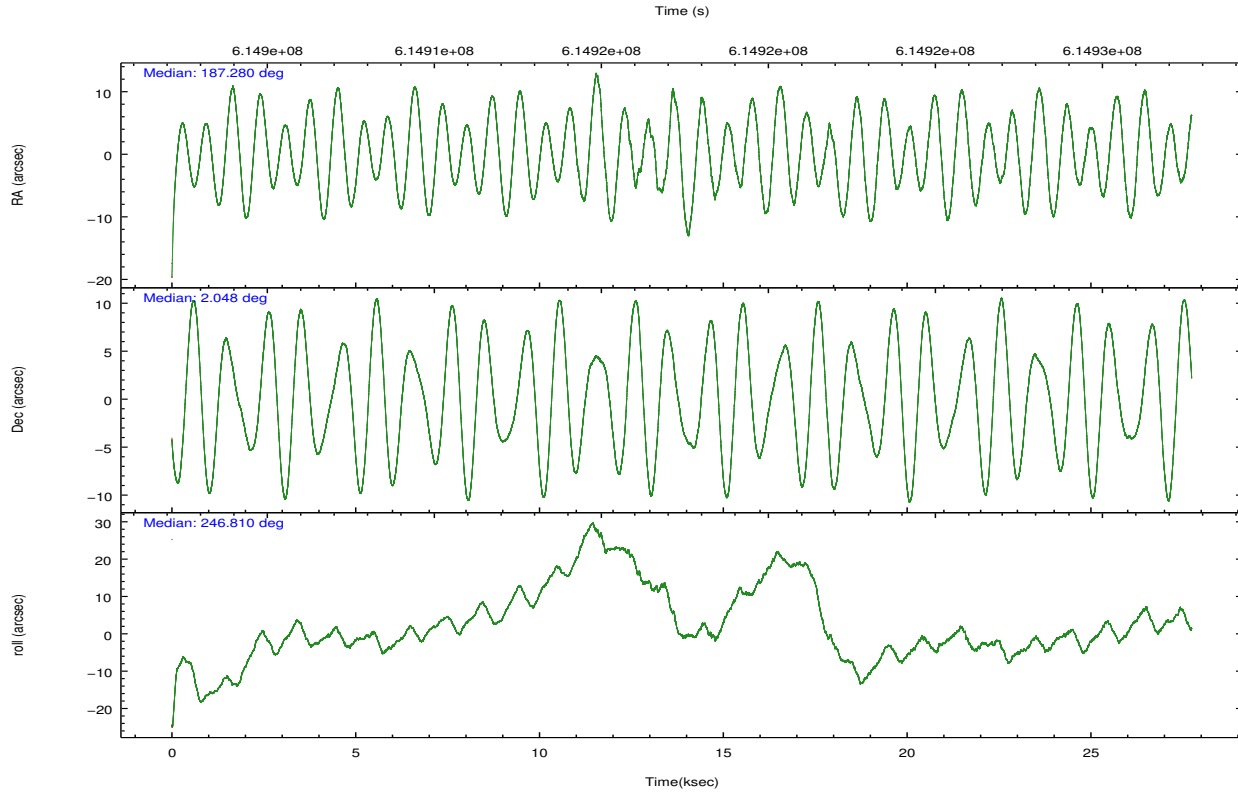
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	223966	317080	210160	273147	261879	196572	grade 0 events	15468	18673	20310	14715	26218	9360
rejected events	193514	159147	171810	141863	185255	171991		6%	5%	9%	5%	10%	4%
rejected %	86%	50%	81%	51%	70%	87%	grade 1 events	219	815	171	580	238	118
								0%	0%	0%	0%	0%	0%
							grade 2 events	5954	48871	6967	28472	17781	5452
								2%	15%	3%	10%	6%	2%
							grade 3 events	2494	5480	2838	11288	7466	2398
								1%	1%	1%	4%	2%	1%
							grade 4 events	2349	5255	2762	11149	6845	2345
								1%	1%	1%	4%	2%	1%
							grade 5 events	9190	23076	9247	26268	13963	10197
								4%	7%	4%	9%	5%	5%
							grade 6 events	4189	79688	5490	65674	18348	5030
								1%	25%	2%	24%	7%	2%
							grade 7 events	184103	135222	162375	115001	171020	161672
								82%	42%	77%	42%	65%	82%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	187.276719	187.2803297171859	CCD I2 on	N	N
[deg] Pointing Dec	2.075133	2.047935581060461	CCD I3 on	N	N
[deg] Pointing Roll	246.660277	246.8167609382628	CCD S0 on	O1	Y
[s] Window start time (MET)	612662469.184000	612662469.184000	CCD S1 on	Y	Y
[s] Window stop time (MET)	617846469.184000	617846469.184000	CCD S2 on	Y	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S3 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S4 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1400660498719	CCD S5 on	O2	Y
[mm] SIM translation stage offset	0	0.00754346686406393	Number of optional ACIS chips dropped	0	0
[s] Observation start time (MET)	614903960.184000	614902694.88827	On-chip summing requested	N	N
Observation start date	2017-06-26T22:38:11	2017-06-26T22:18:14	Subarray requested	NONE	NONE
[s] Observation end time (MET)	614931260.184000	614931952.48998	Alternating exposures requested	N	N
Observation end date	2017-06-27T06:13:11	2017-06-27T06:25:52	[s] Primary exposure time	0.000000	3.2
Read mode	TIMED	TIMED			

2.3 Aspect



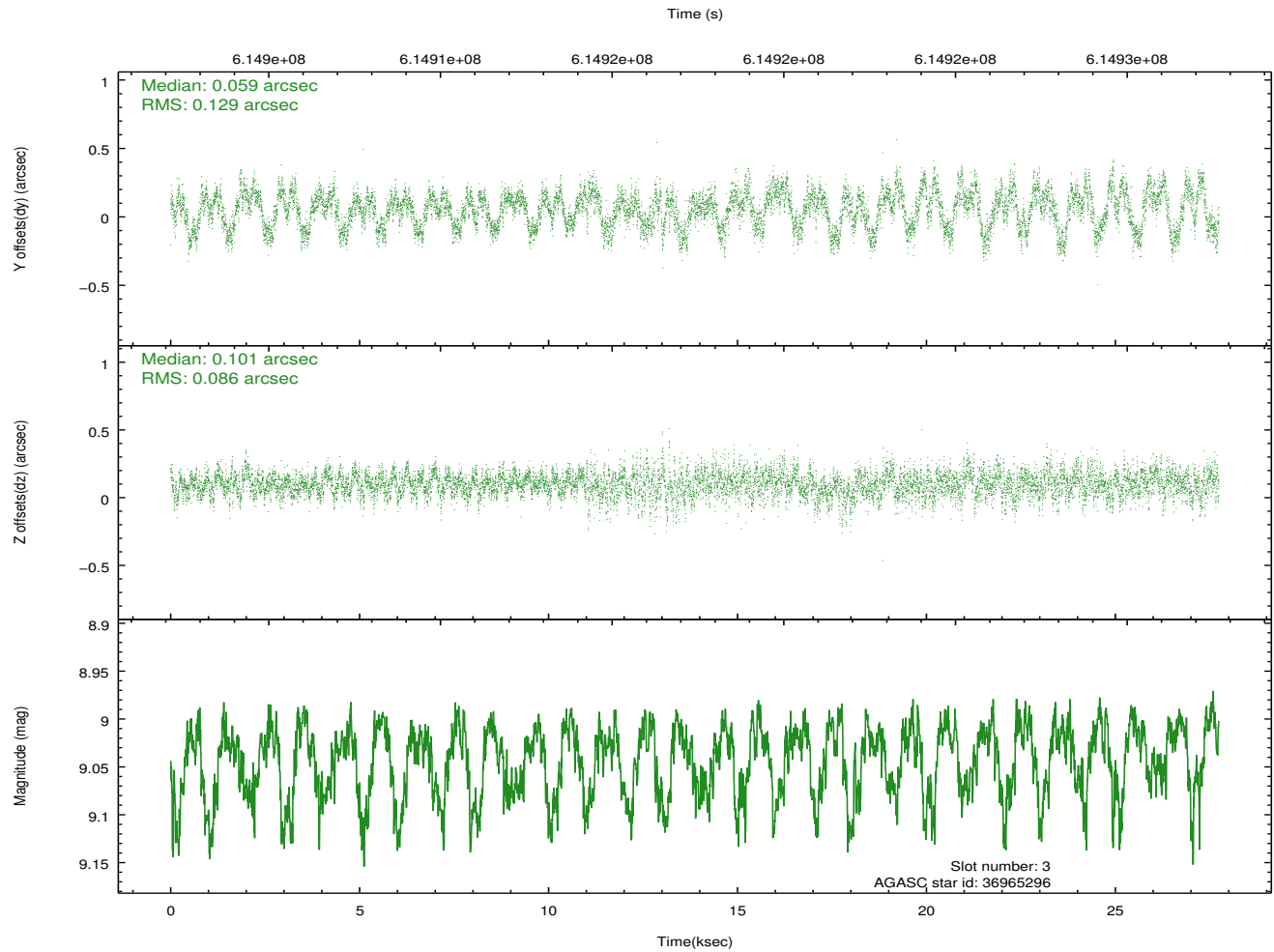
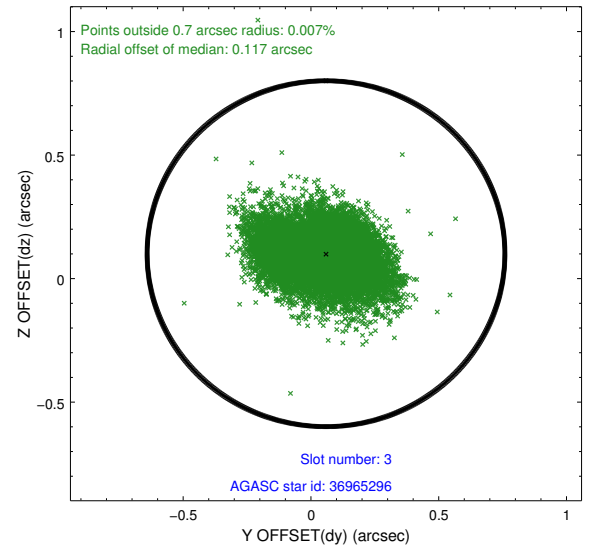
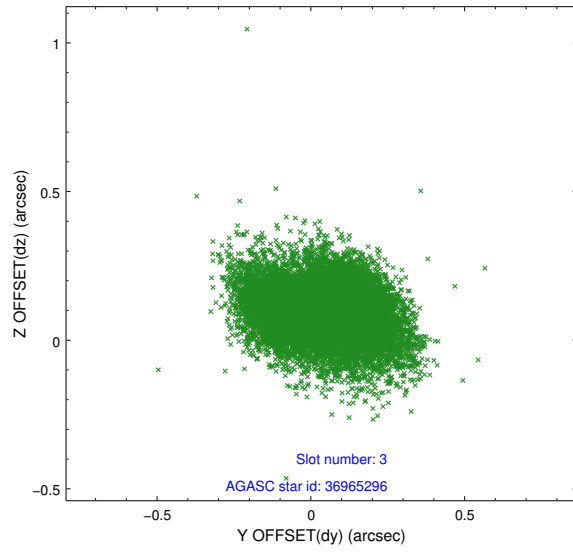


Slot Statistics

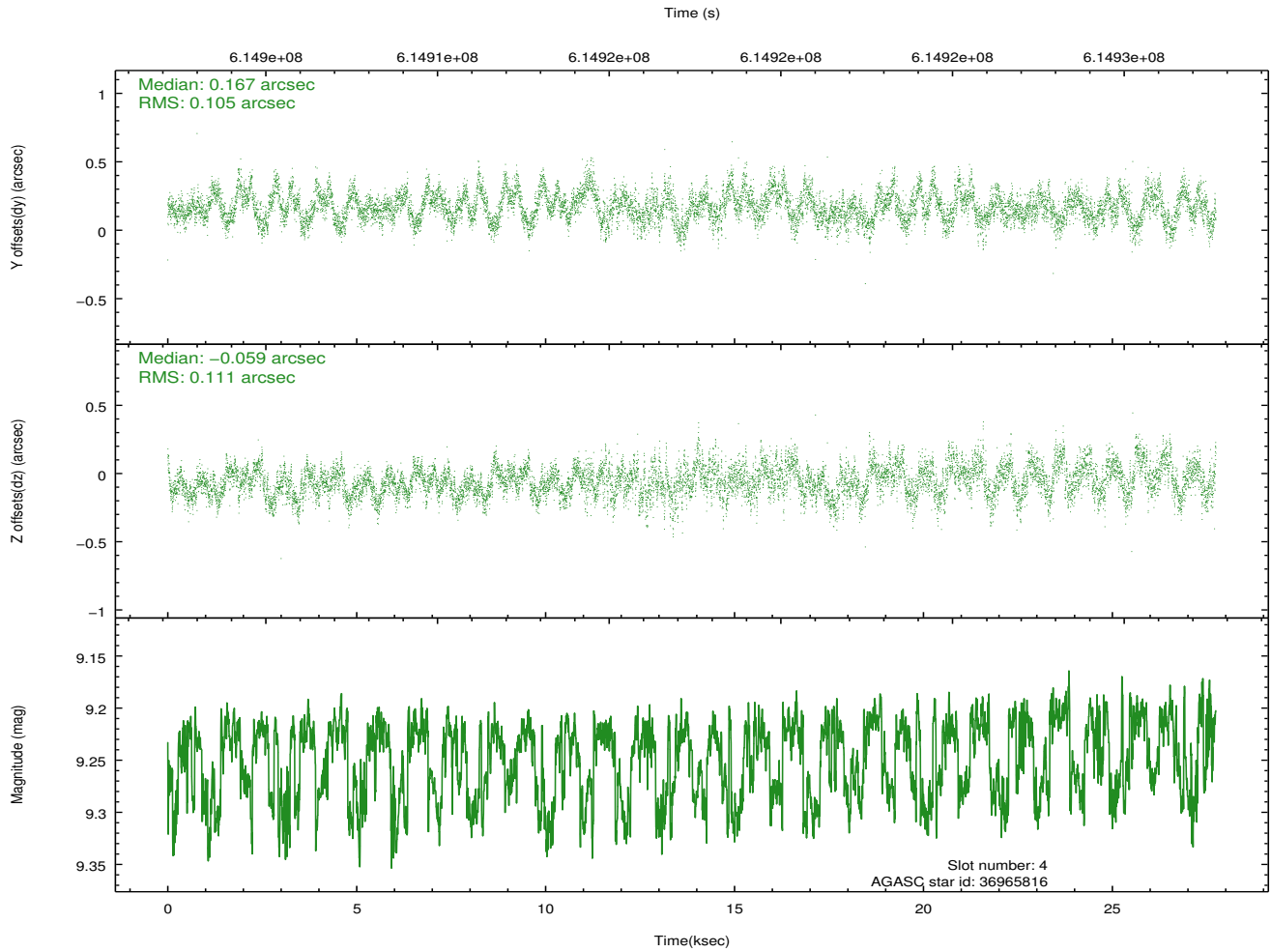
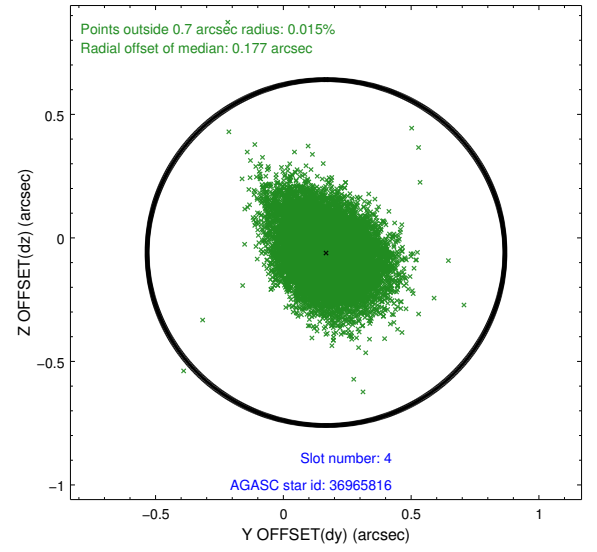
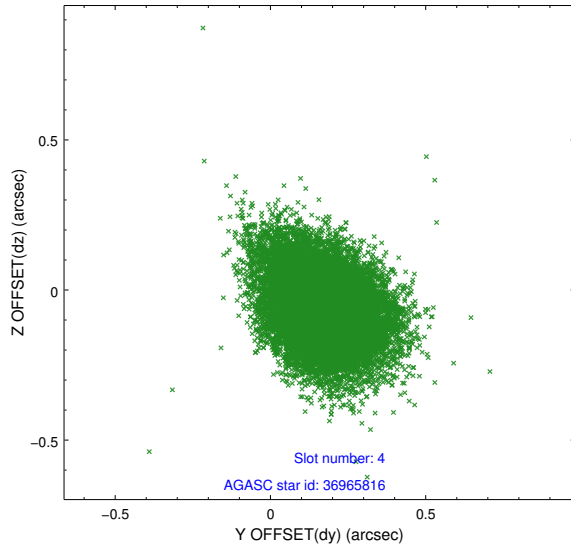
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.94	6767	-0.139	-0.077	0.012	0.018	0.000000	0.000000	-763.00	-1739.89
1	FID		ACIS-S-4	7.05	6767	0.362	0.087	0.015	0.028	0.000000	0.000000	2150.74	168.66
2	FID		ACIS-S-5	7.06	6766	-0.253	-0.001	0.011	0.026	0.000000	0.000000	-1815.84	162.35
3	GUIDE	used	36965296	9.04	13522	0.059	0.101	0.164	0.270	186.926292	1.837429	1285.60	-818.95
4	GUIDE	used	36965816	9.24	13517	0.167	-0.059	0.162	0.264	186.823353	1.771455	1650.61	-1064.78
5	GUIDE	used	36965896	9.66	13526	-0.074	-0.046	0.193	0.330	187.153754	1.617178	1689.38	246.93
6	GUIDE	used	37356352	7.68	13528	-0.186	0.014	0.113	0.214	187.433784	2.618460	-2019.44	-256.50
7	GUIDE	used	37883040	9.94	13437	0.047	-0.006	0.244	0.382	187.575516	1.280402	2201.26	2121.22

2.4 Star Slots

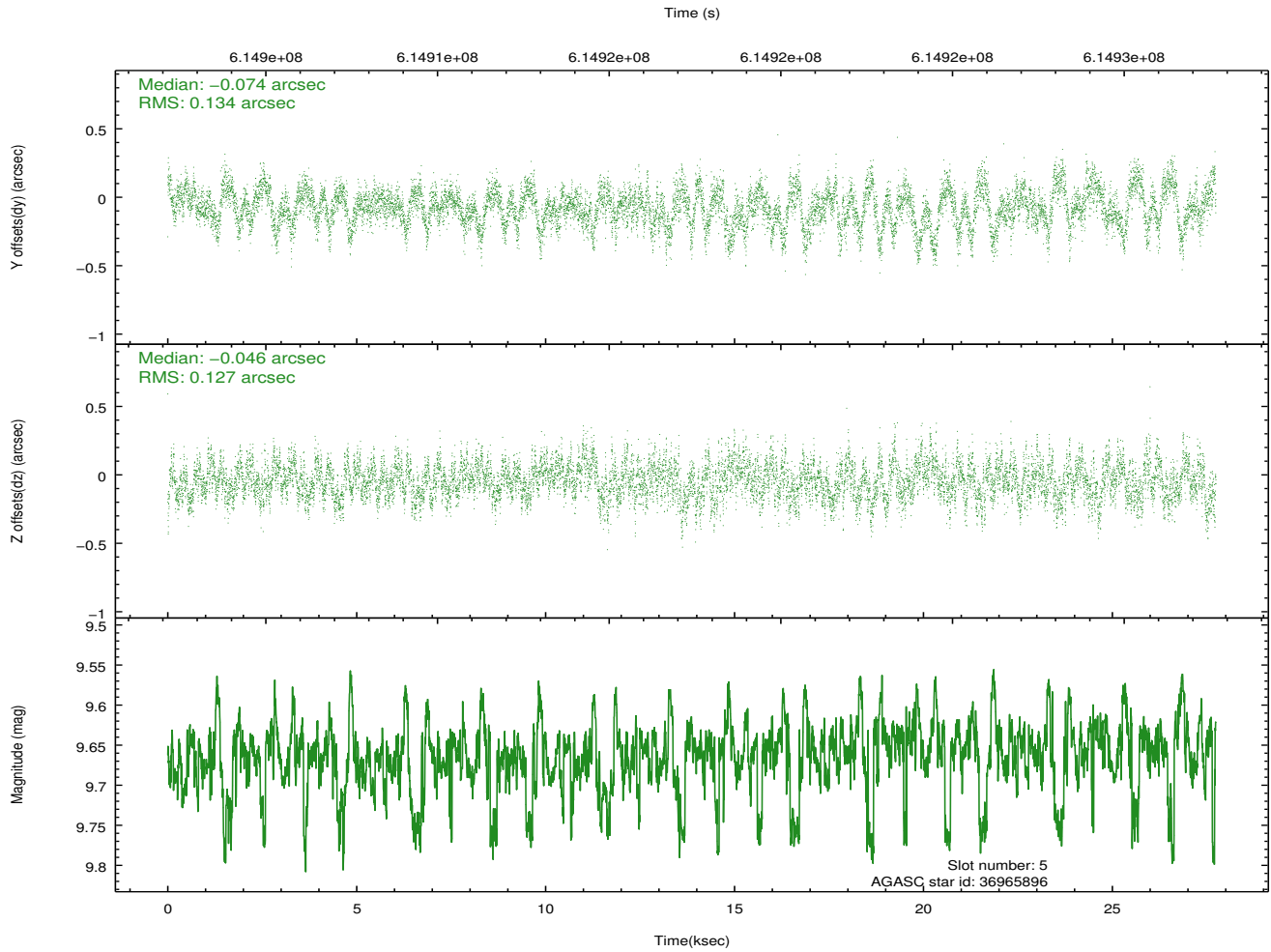
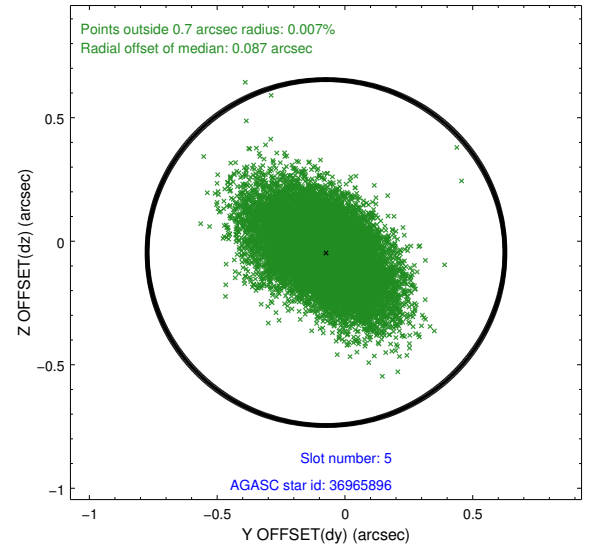
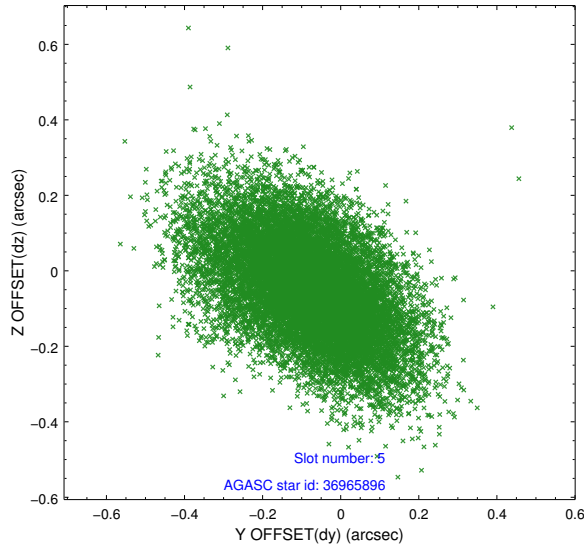
2.4.1 Slot 3



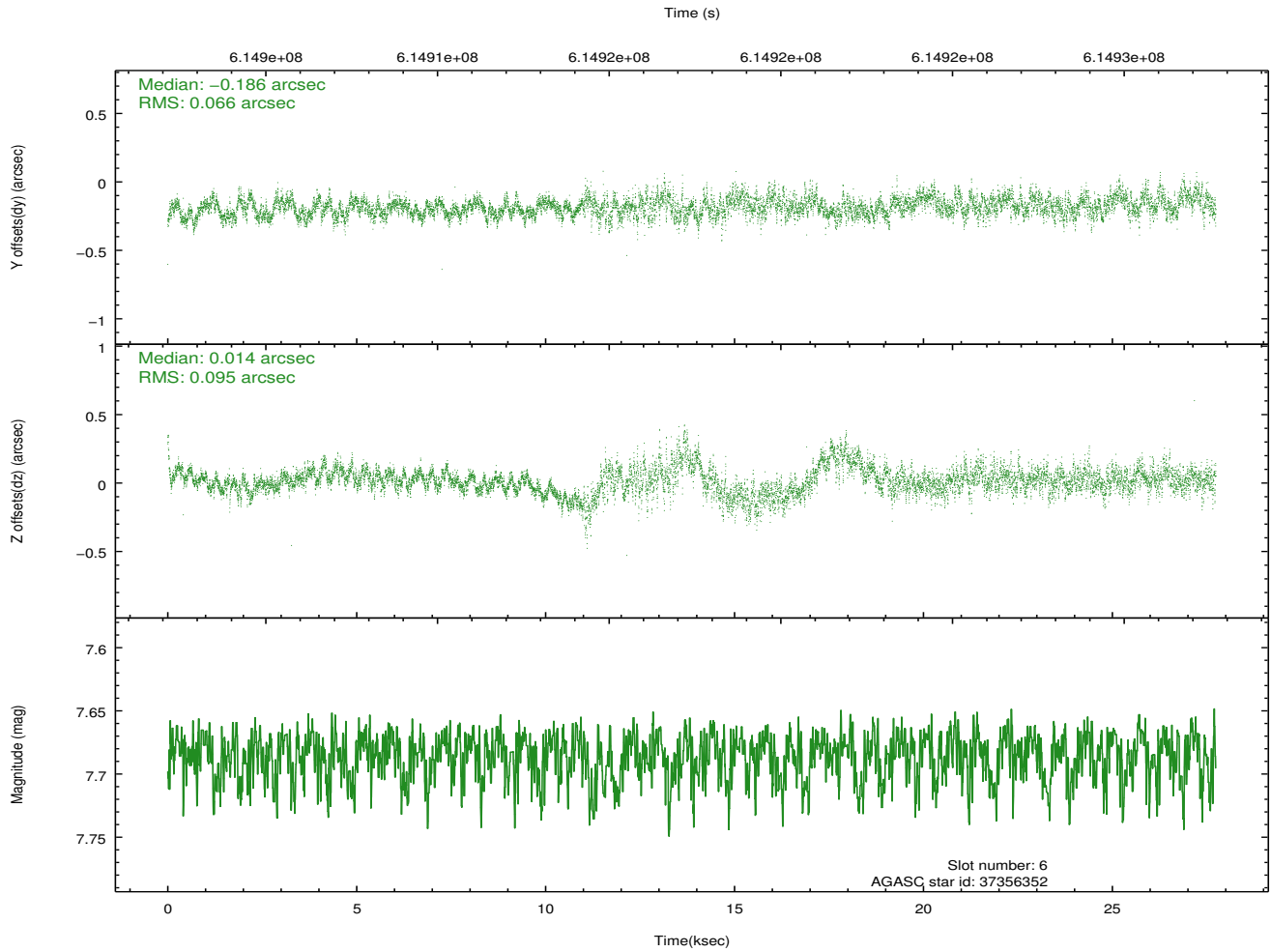
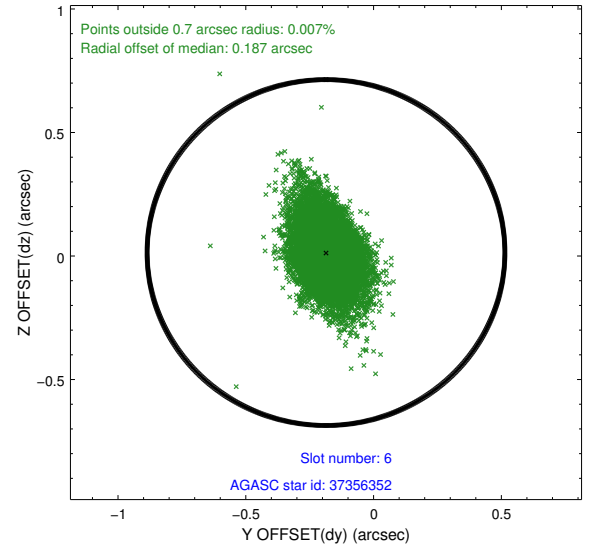
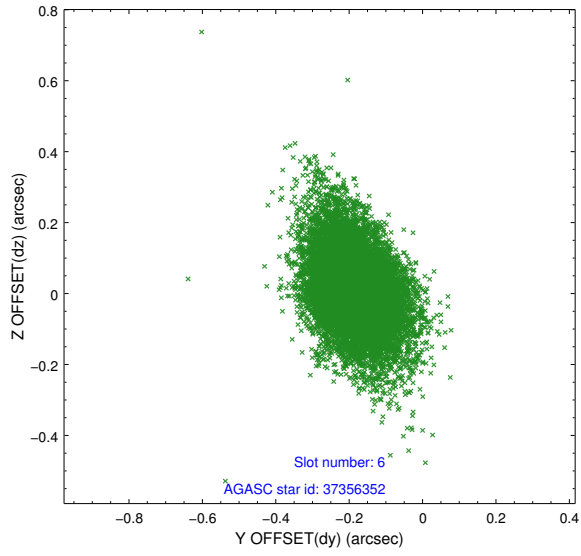
2.4.2 Slot 4



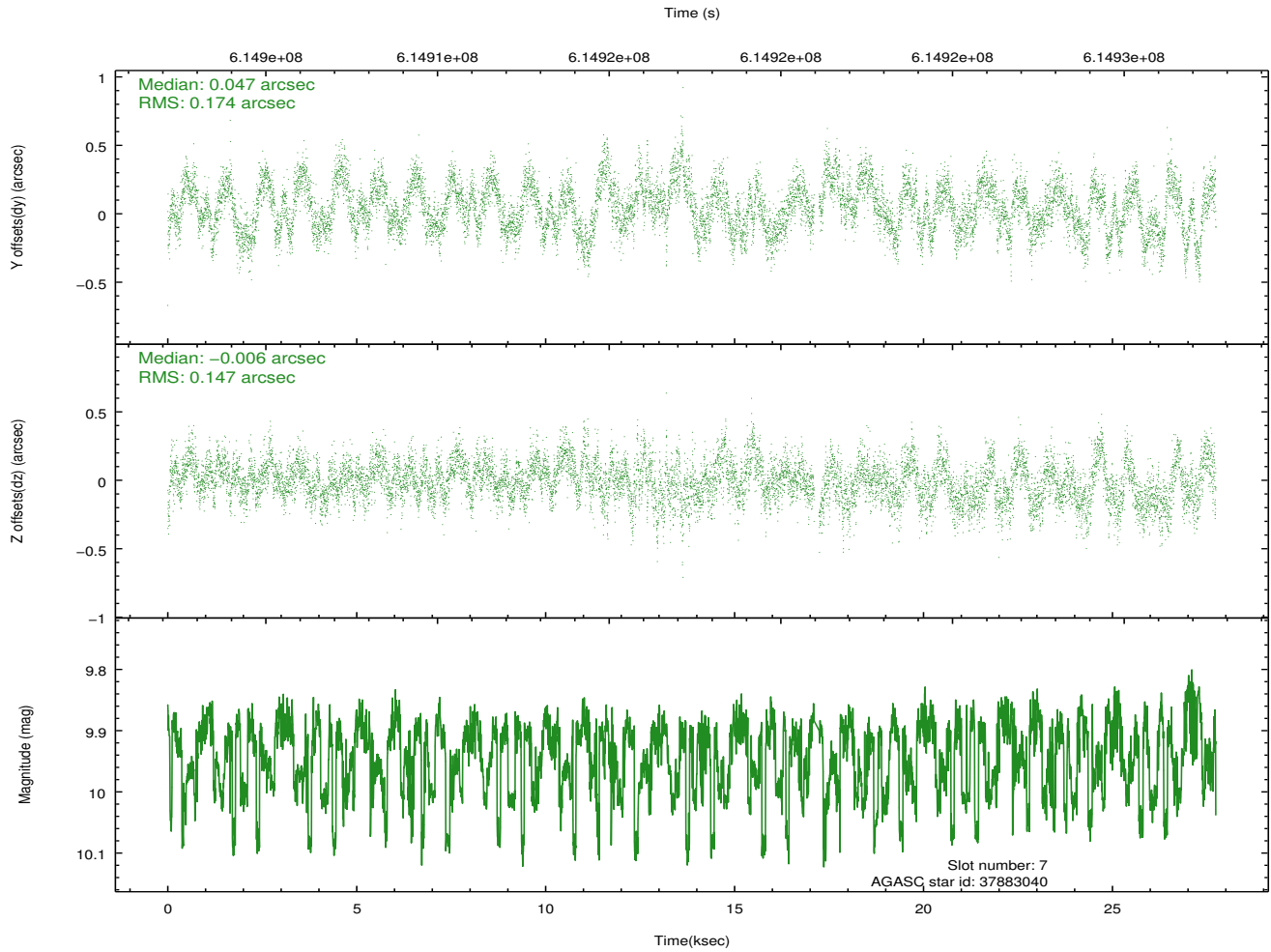
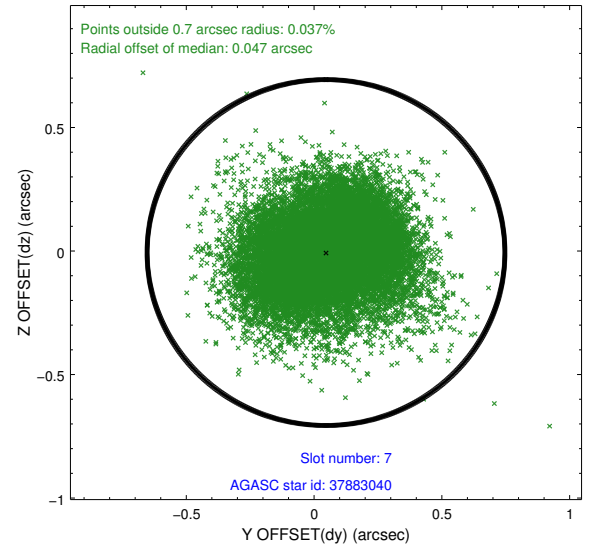
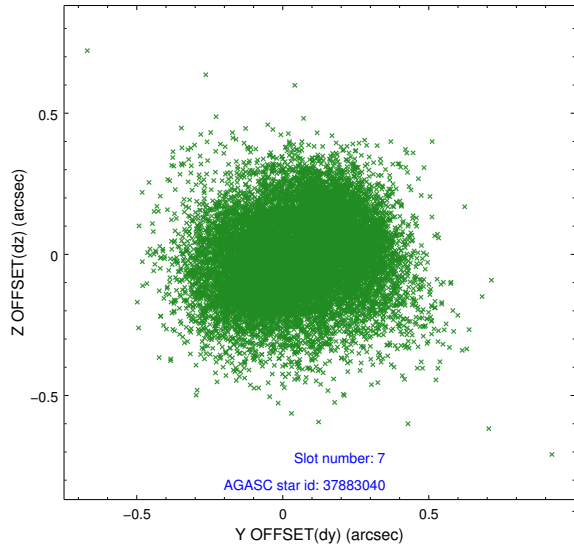
2.4.3 Slot 5



2.4.4 Slot 6

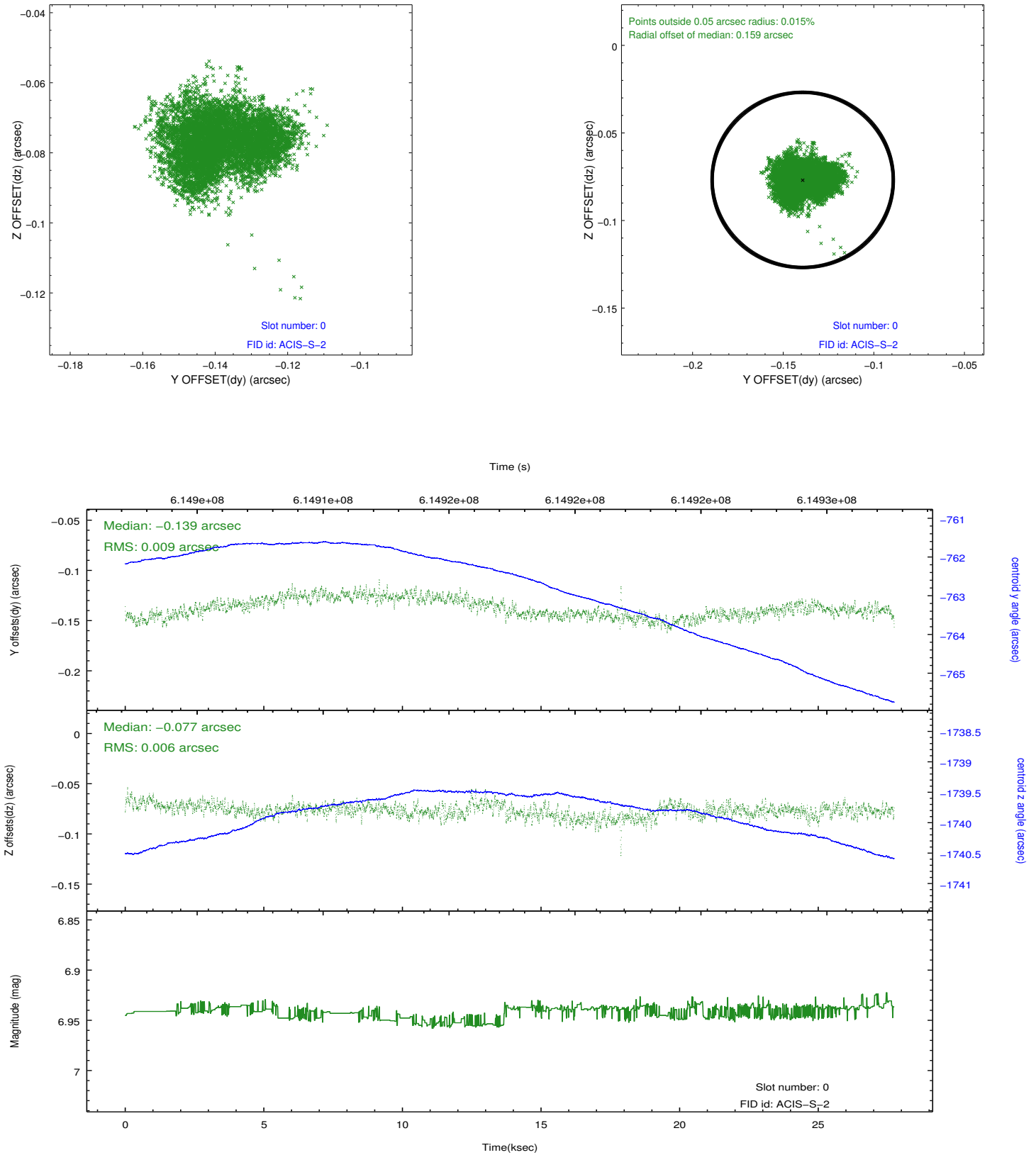


2.4.5 Slot 7

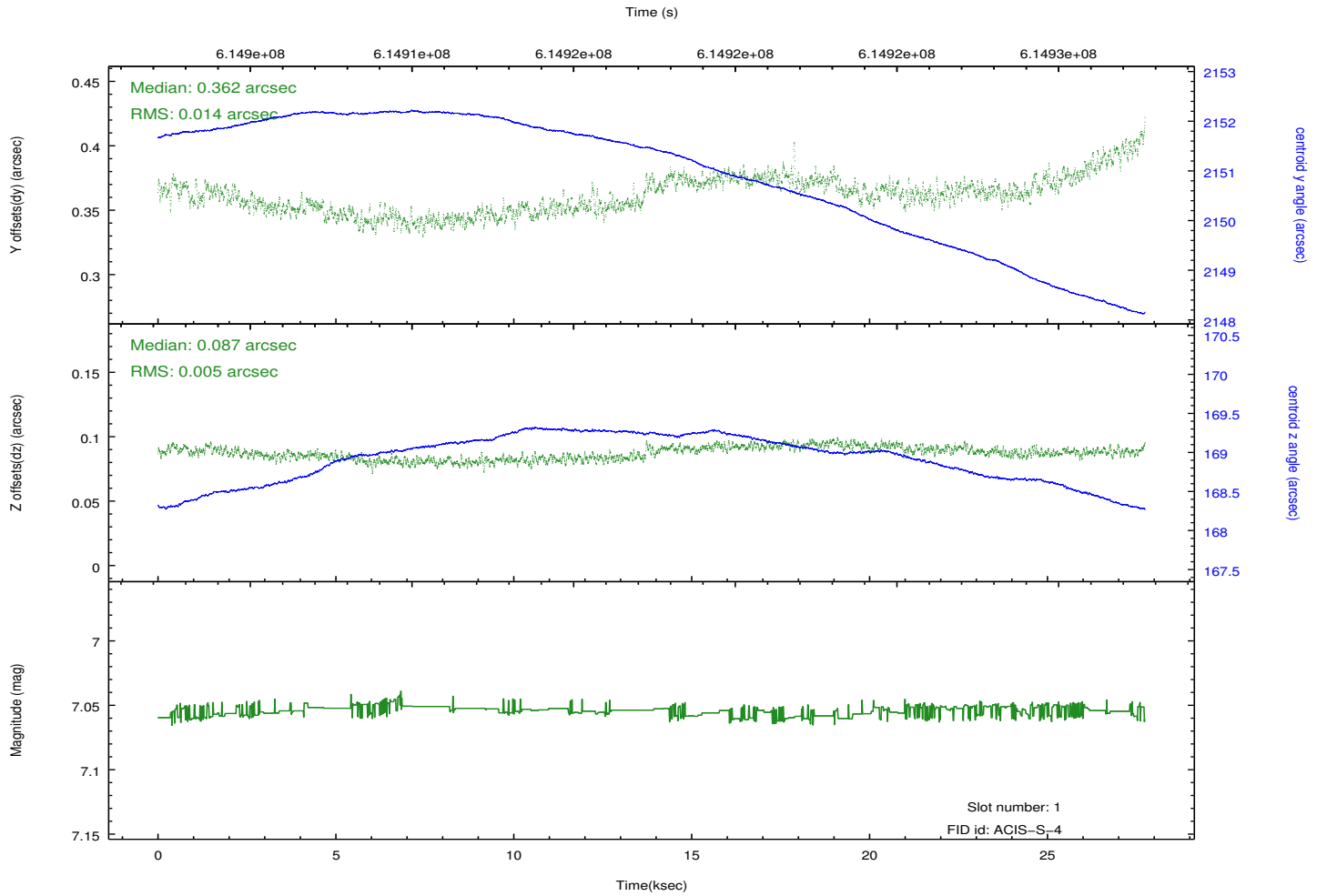
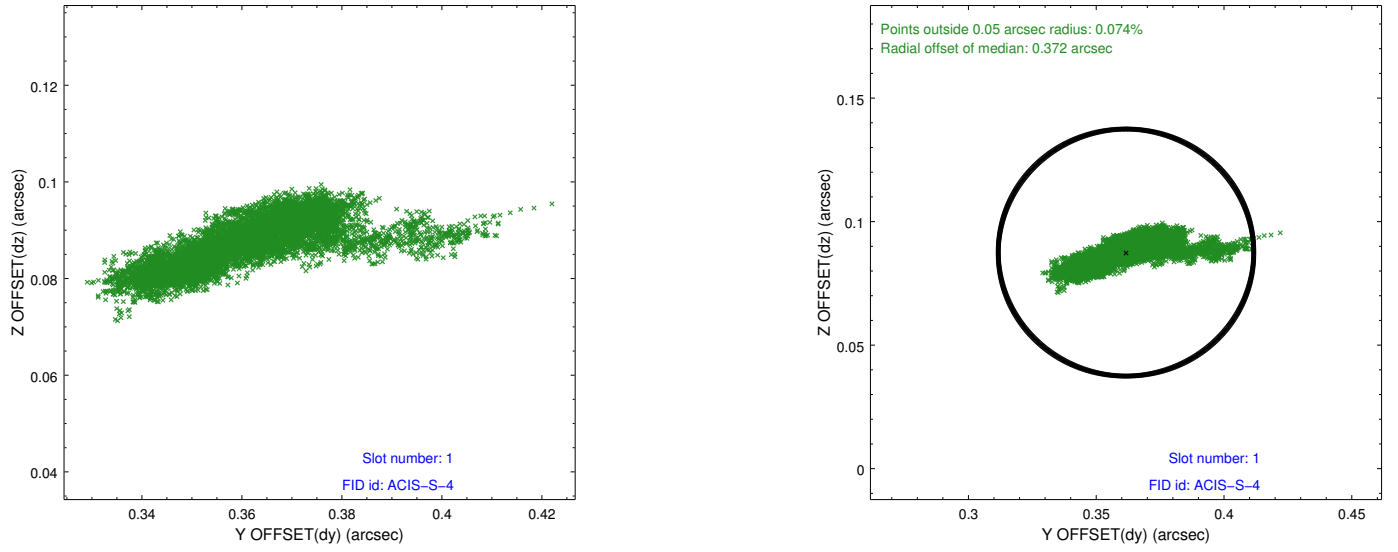


2.5 FID Slots

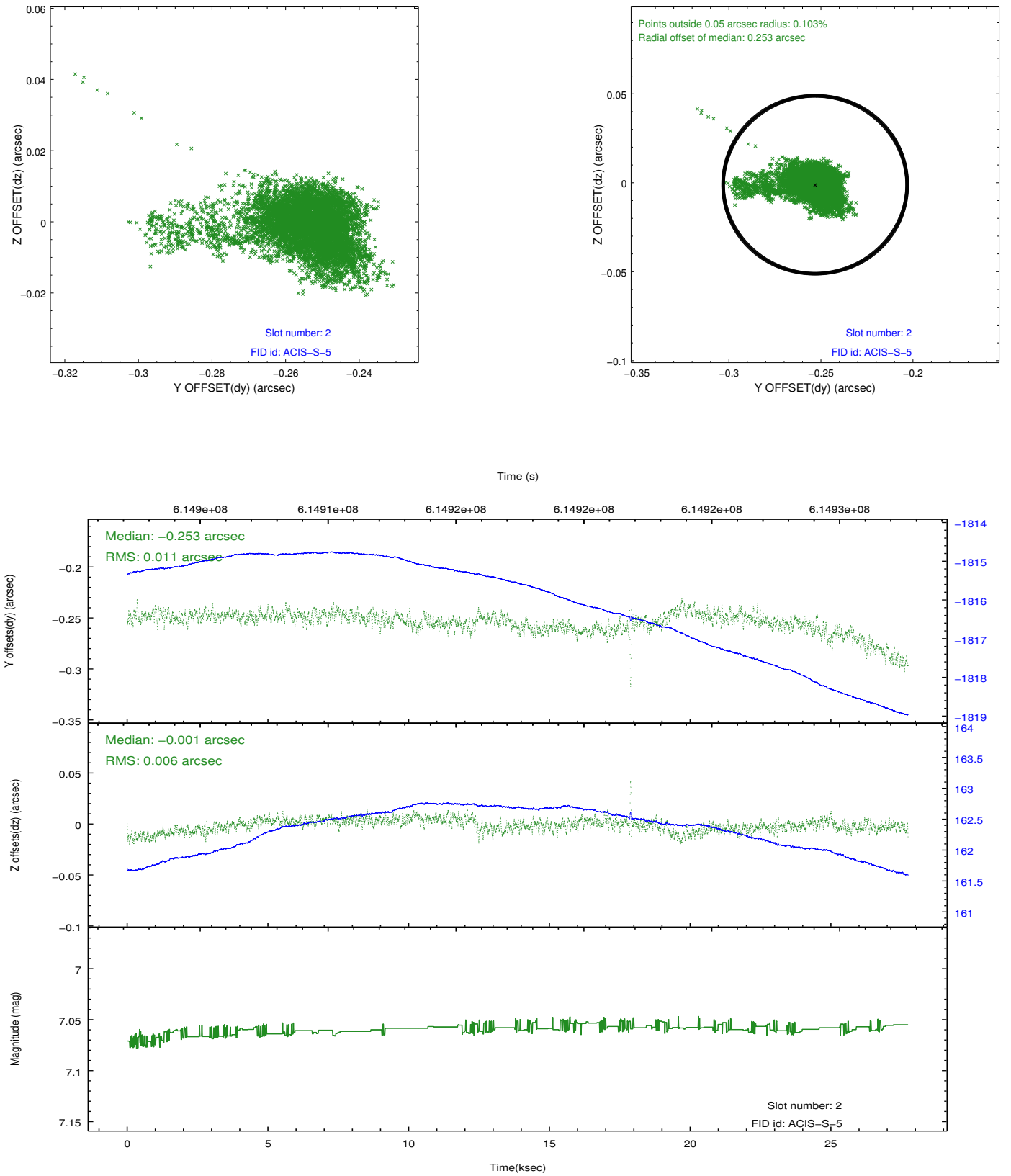
2.5.1 Slot 0



2.5.2 Slot 1

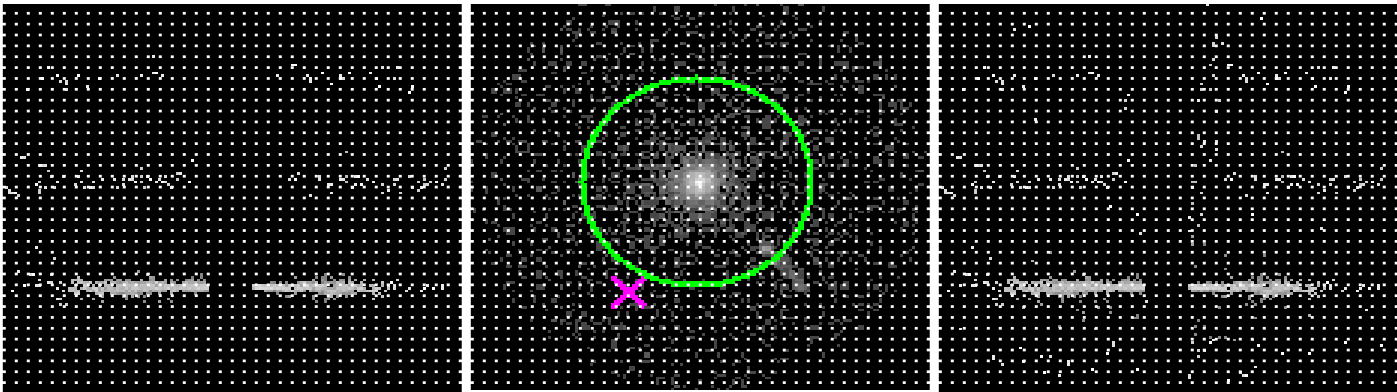


2.5.3 Slot 2



3 Gratings

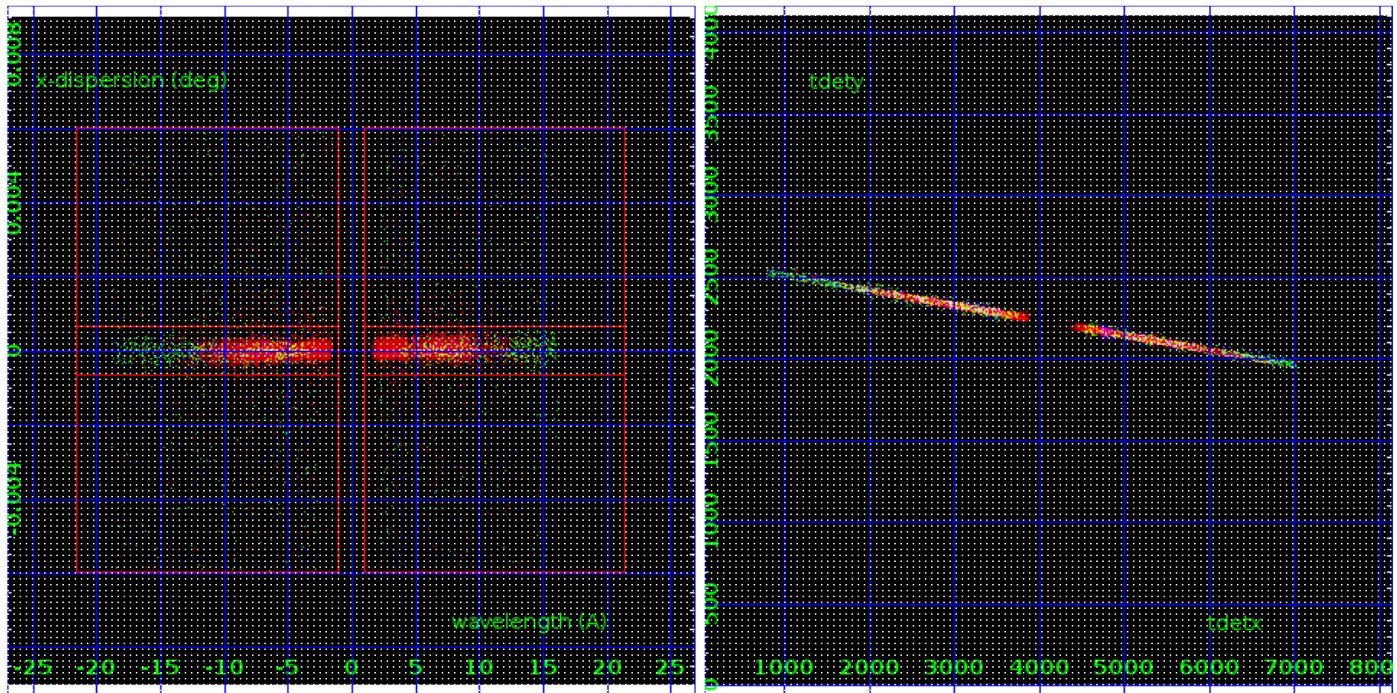
3.1 HEG Arm



HEG Order Sort 123

HEG Zero Order

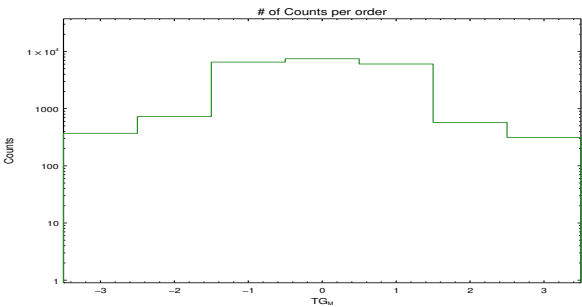
HEG Order Sort ALL

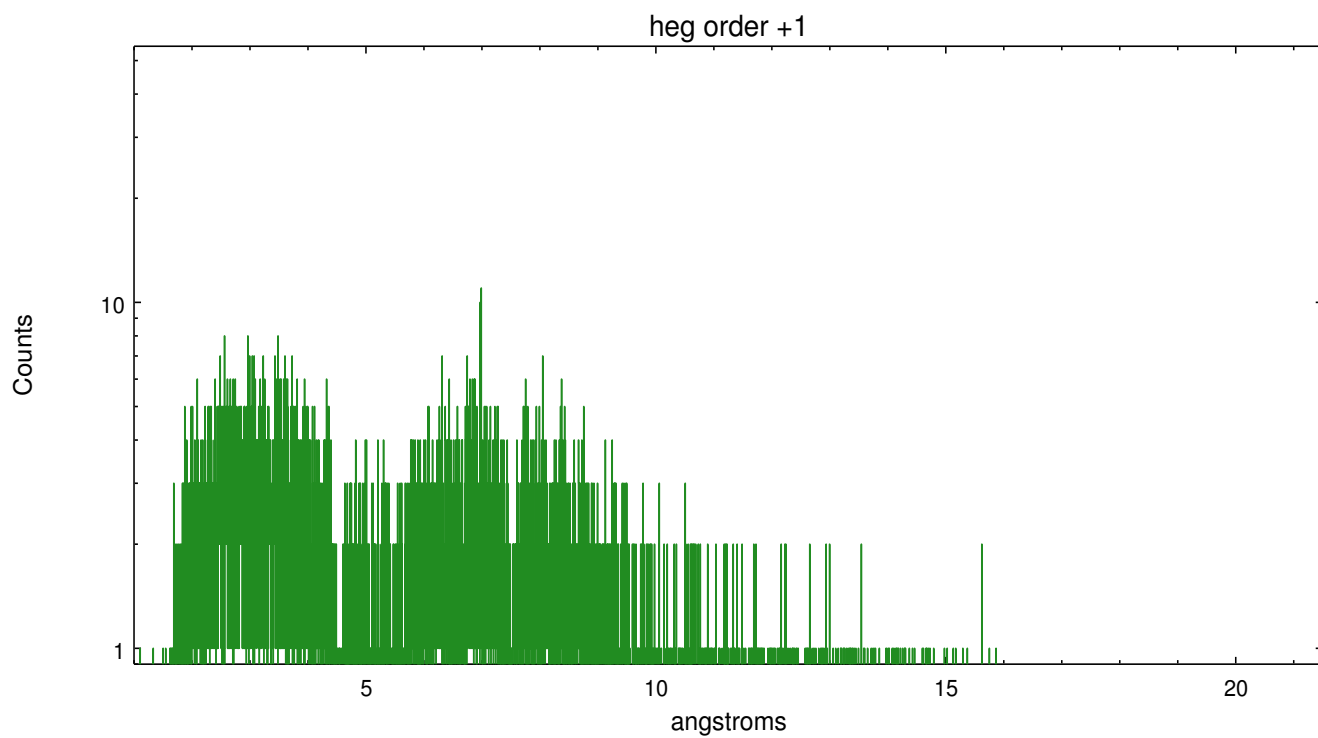
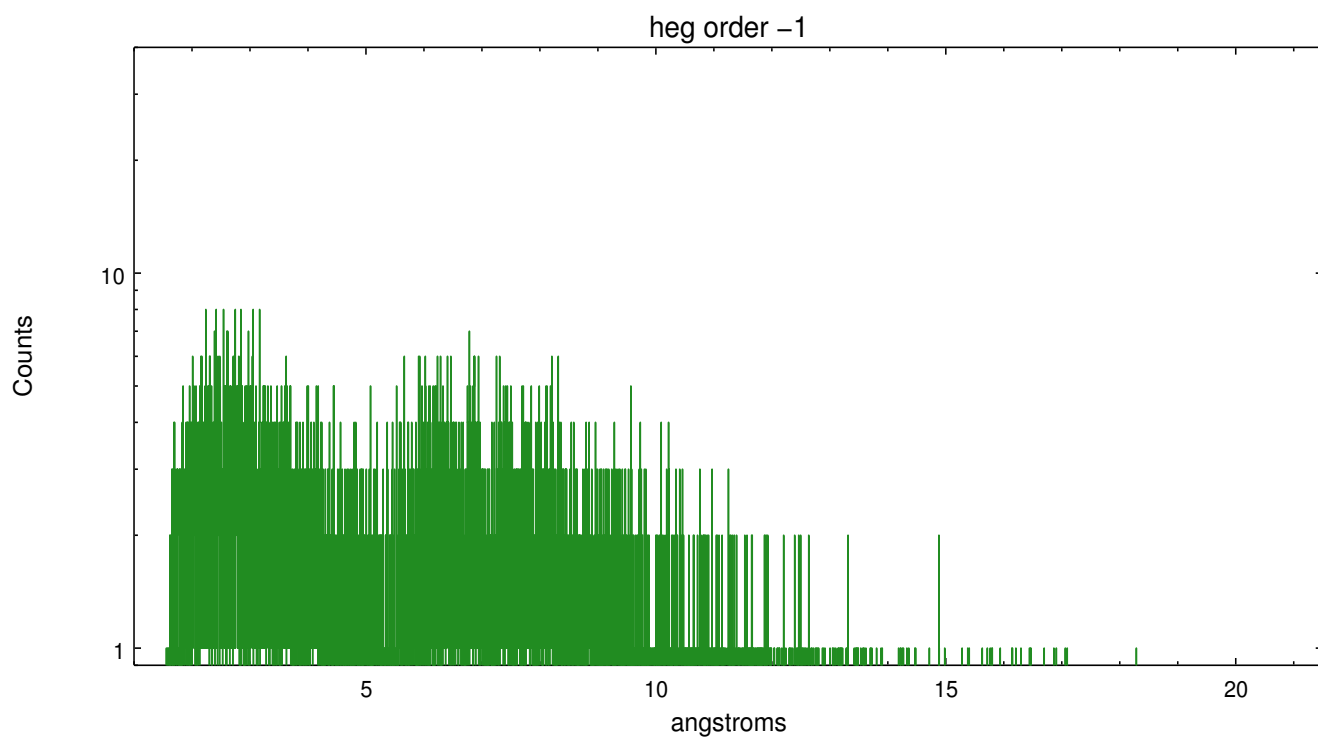


Spot Image HEG

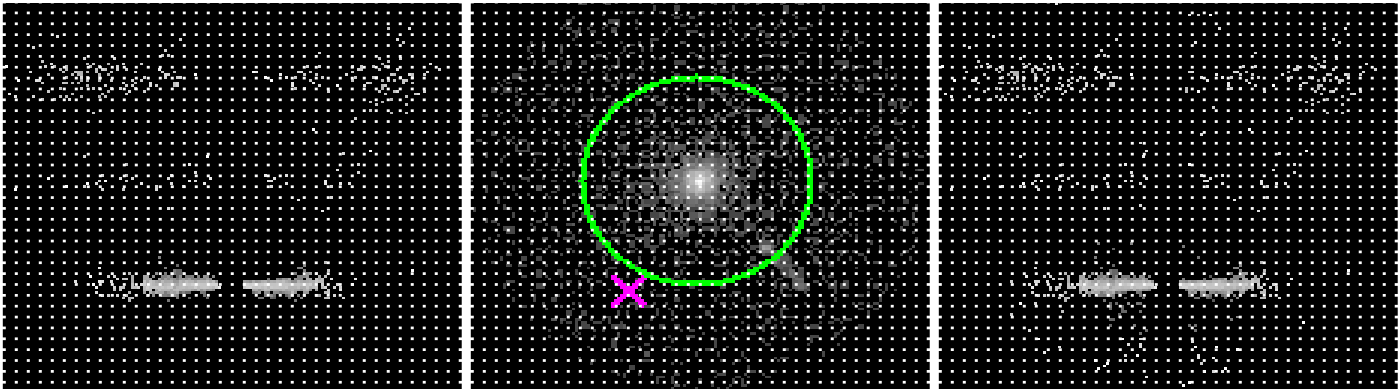
Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	370	726	6518	7460	6038	574	314





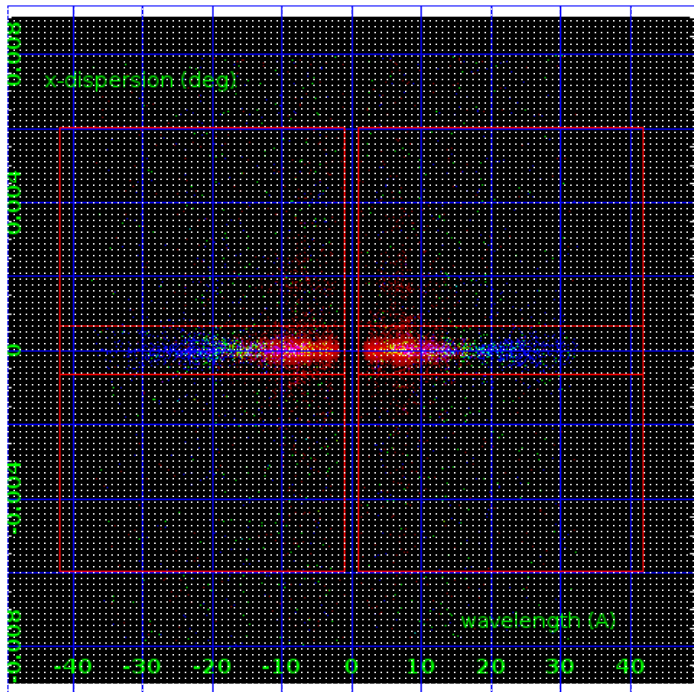
3.2 MEG Arm



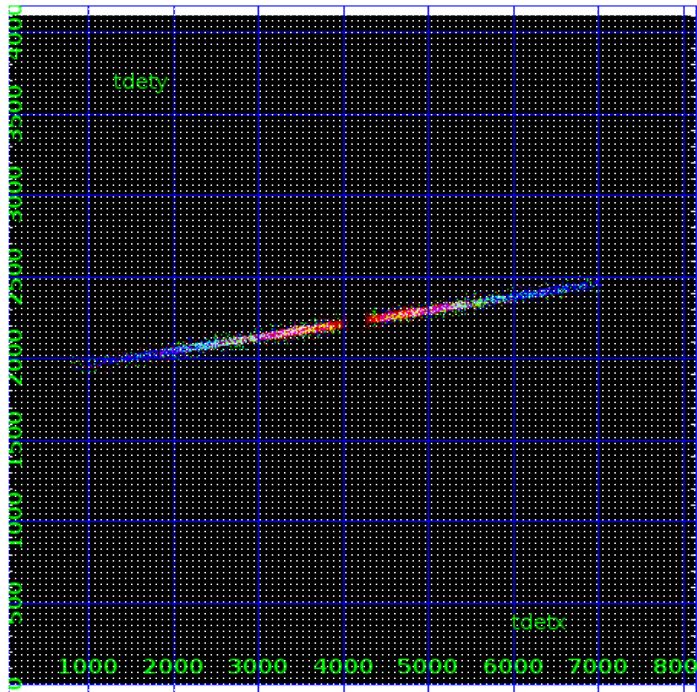
MEG Order Sort 123

MEG Zero Order

MEG Order Sort ALL

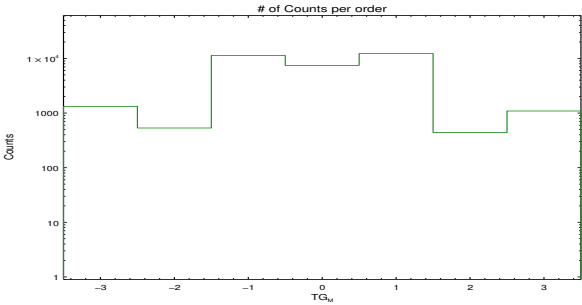


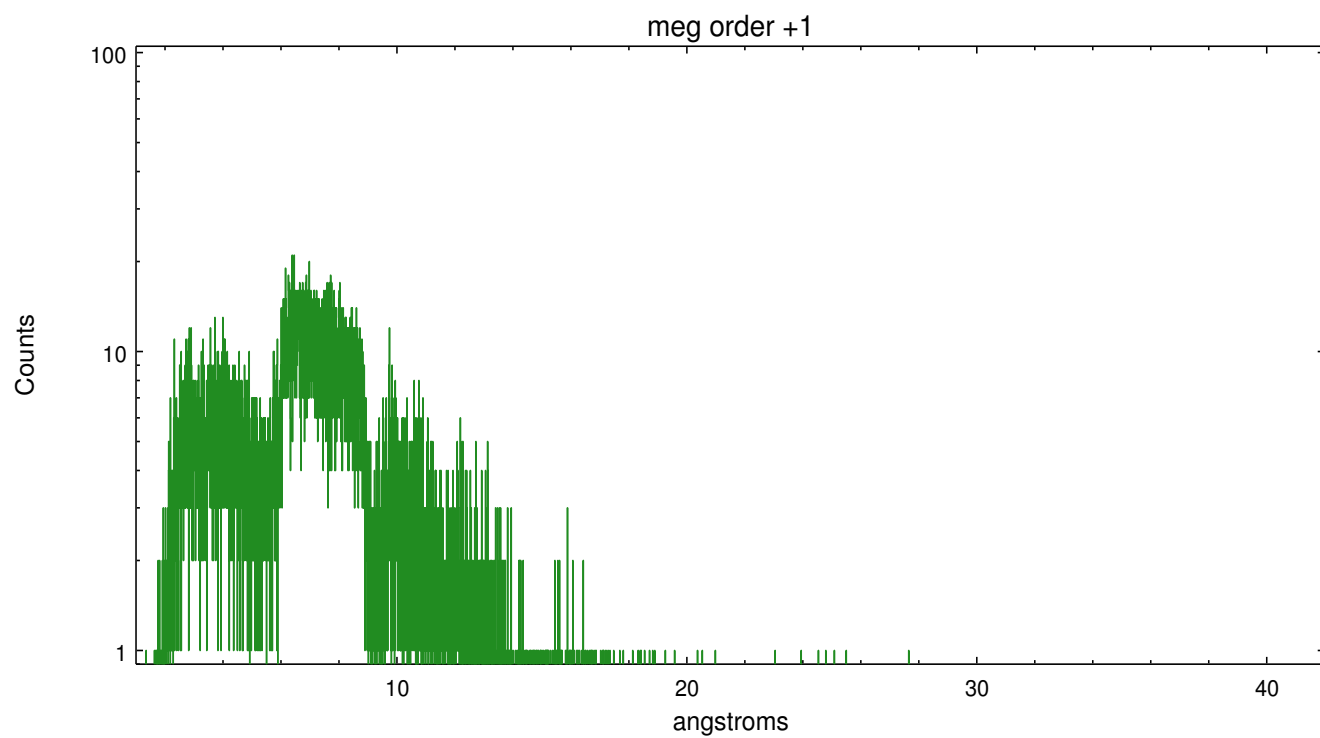
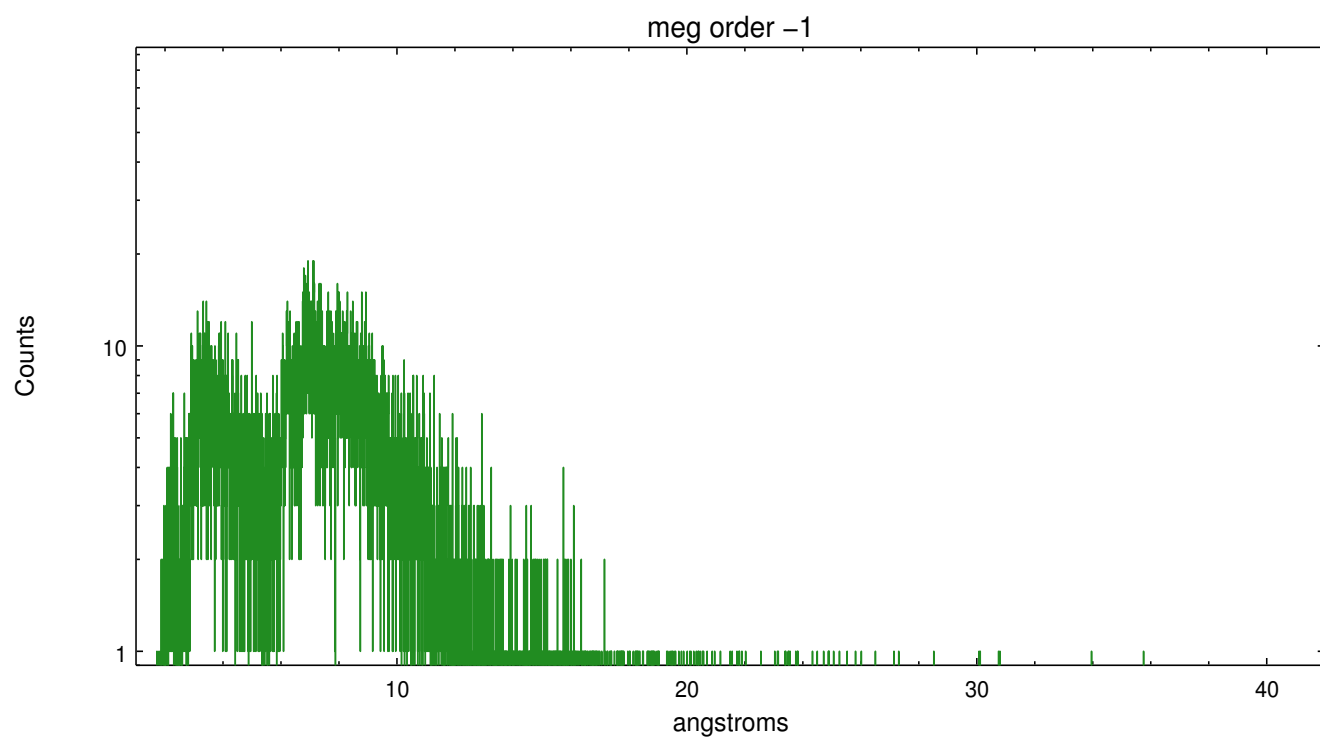
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	1325	533	11328	7460	12265	441	1091





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2017.06.27
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	27.251200406075

A.2 Comments