

# V&V Reference Report

## L2 ASCDS Version : 10.3.3

Observation 17638 - L2 Version 2  
Chandra X-Ray Center

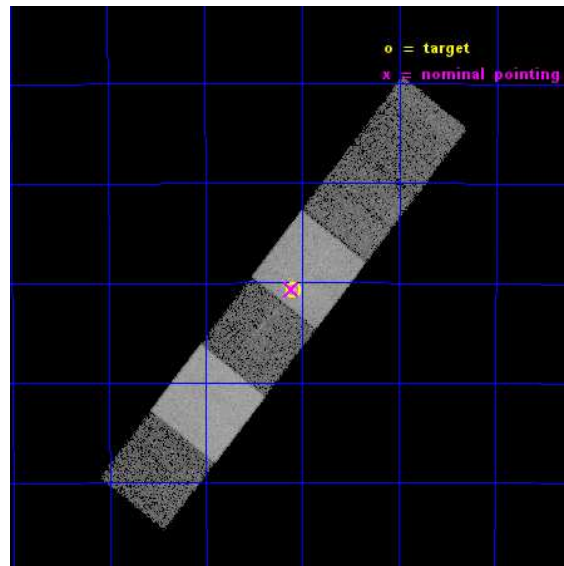
L2 Processing Date : Apr 7 2015

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# 1 Front

seq_num	200919	Sequence number
obs_id	17638	Observation id
title	Wind Properties in a Very Young Pup	Proposal title
observer	Dr. Norbert Schulz	Principal investigator
object	RCW38/IRS2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	134.773333	Observer's specified target RA [deg]
dec_targ	-47.511361	Observer's specified target Dec [deg]
ra_nom	134.7779081888	Nominal RA [deg]
dec_nom	-47.511112377562	Nominal Dec [deg]
roll_nom	308.16000314774	Nominal Roll [deg]
revision	2	Processing version of data
ontime	18060.800269127	Sum of GTIs [s]
livetime	17832.103541211	Livetime [s]
ontime4	18060.800269127	Sum of GTIs [s]
ontime5	18060.800269127	Sum of GTIs [s]
ontime6	18060.800269127	Sum of GTIs [s]
ontime7	18060.800269127	Sum of GTIs [s]
ontime8	18060.800269127	Sum of GTIs [s]
ontime9	18060.800269127	Sum of GTIs [s]
l2events	153679	Number of level 2 events

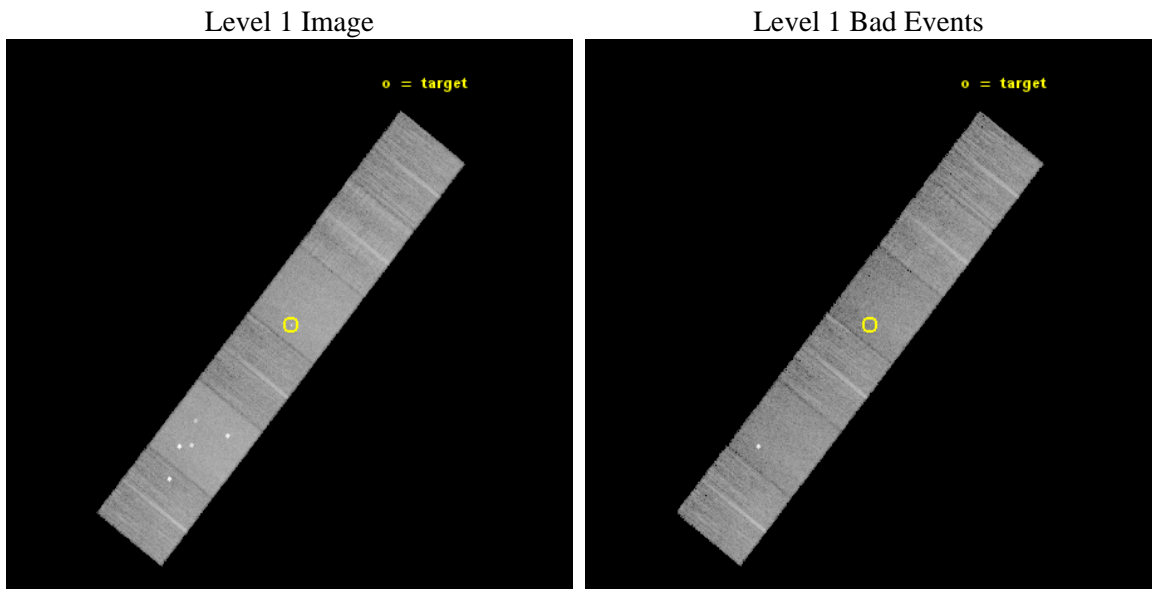




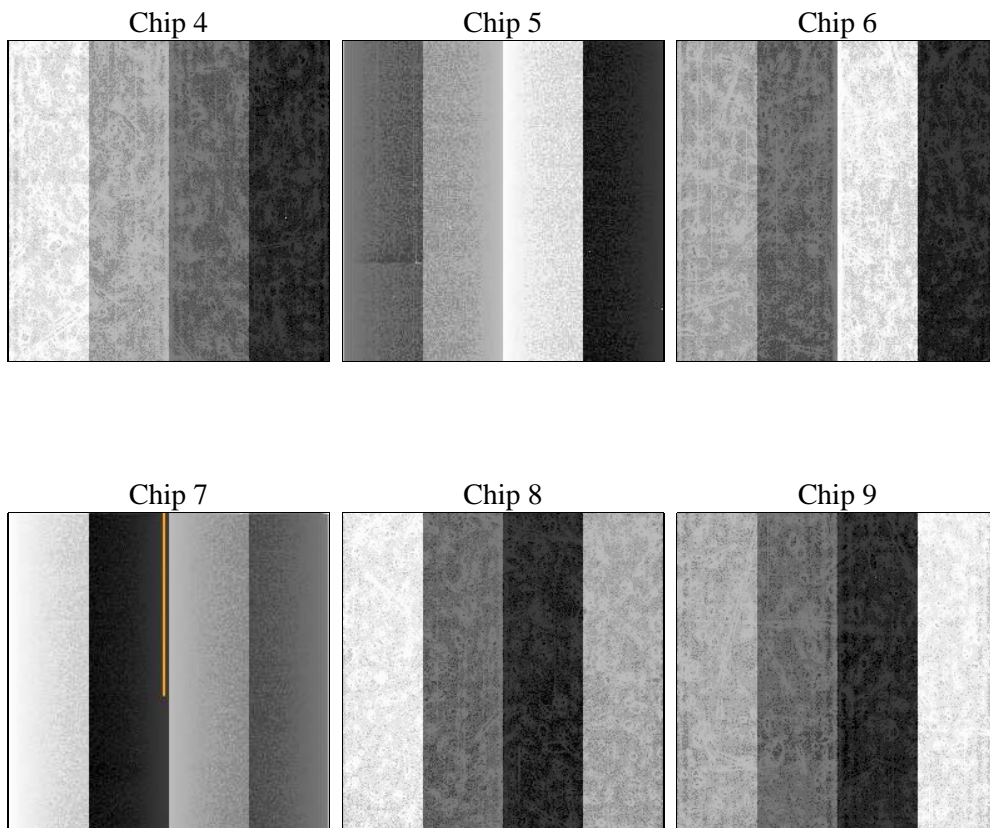
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	18100.000000	[s] Scheduled observation exposure time
ascdsver	10.3.3	Processing system revision	ontime	18060.800269127	Sum of GTIs [s]
caldsver	4.6.7	&#160	ontime4	18060.800269127	Sum of GTIs [s]
date	2015-04-05T17:35:34	Date and time of file creation	ontime5	18060.800269127	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	18060.800269127	Sum of GTIs [s]
			ontime7	18060.800269127	Sum of GTIs [s]
			ontime8	18060.800269127	Sum of GTIs [s]
			ontime9	18060.800269127	Sum of GTIs [s]
			l1events	657915	Number of level 1 events
			tgmetho	TGDETECT	Method used to create src1a file
			ra_pos	(4116.80, 4004.20)	src1a sky pixel position

### 2.1.4 Events

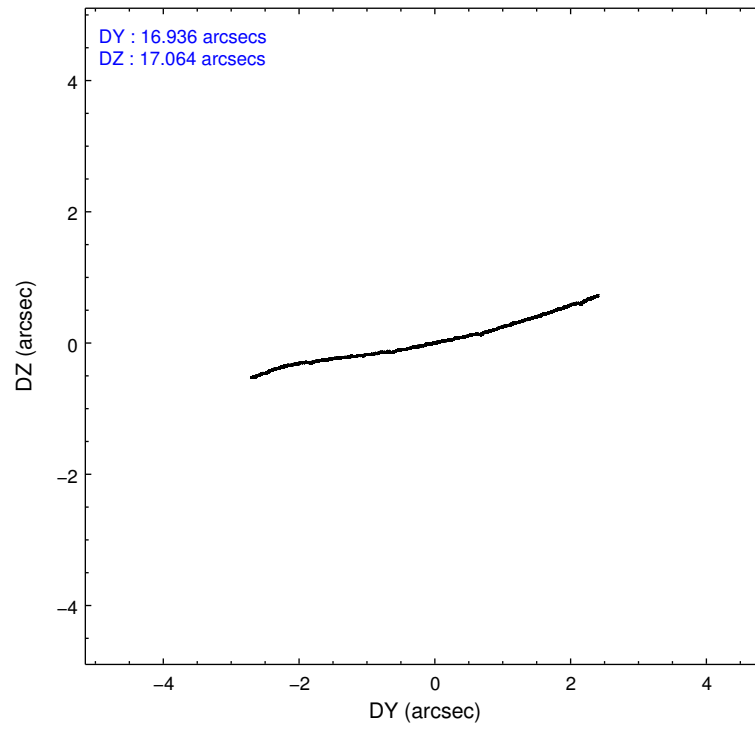
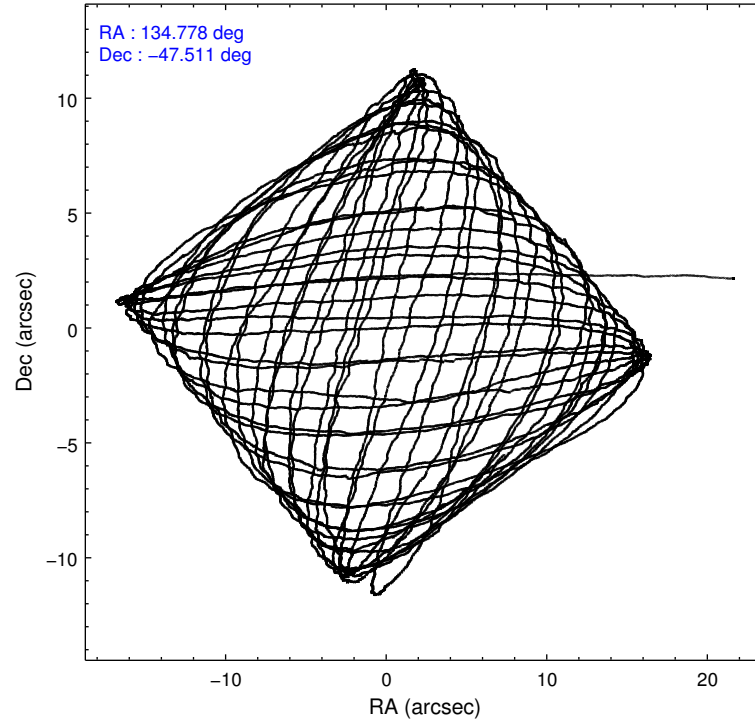
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	100282	149701	87918	118587	112727	88700	grade 0 events	8316	10223	4069	4978	8781	3831
rejected events	85098	76685	76723	65436	83340	77766		8%	6%	4%	4%	7%	4%
rejected %	84%	51%	87%	55%	73%	87%	grade 1 events	112	271	43	157	87	62
								0%	0%	0%	0%	0%	0%
							grade 2 events	2645	21986	2578	11200	6837	2467
								2%	14%	2%	9%	6%	2%
							grade 3 events	1206	2244	998	4628	3200	1210
								1%	1%	1%	3%	2%	1%
							grade 4 events	1109	2182	1098	4558	2890	1045
								1%	1%	1%	3%	2%	1%
							grade 5 events	4494	10811	4402	12017	6522	4923
								4%	7%	5%	10%	5%	5%
							grade 6 events	1909	36395	2453	27795	7680	2383
								1%	24%	2%	23%	6%	2%
							grade 7 events	80491	65589	72277	53254	76730	72779
								80%	43%	82%	44%	68%	82%

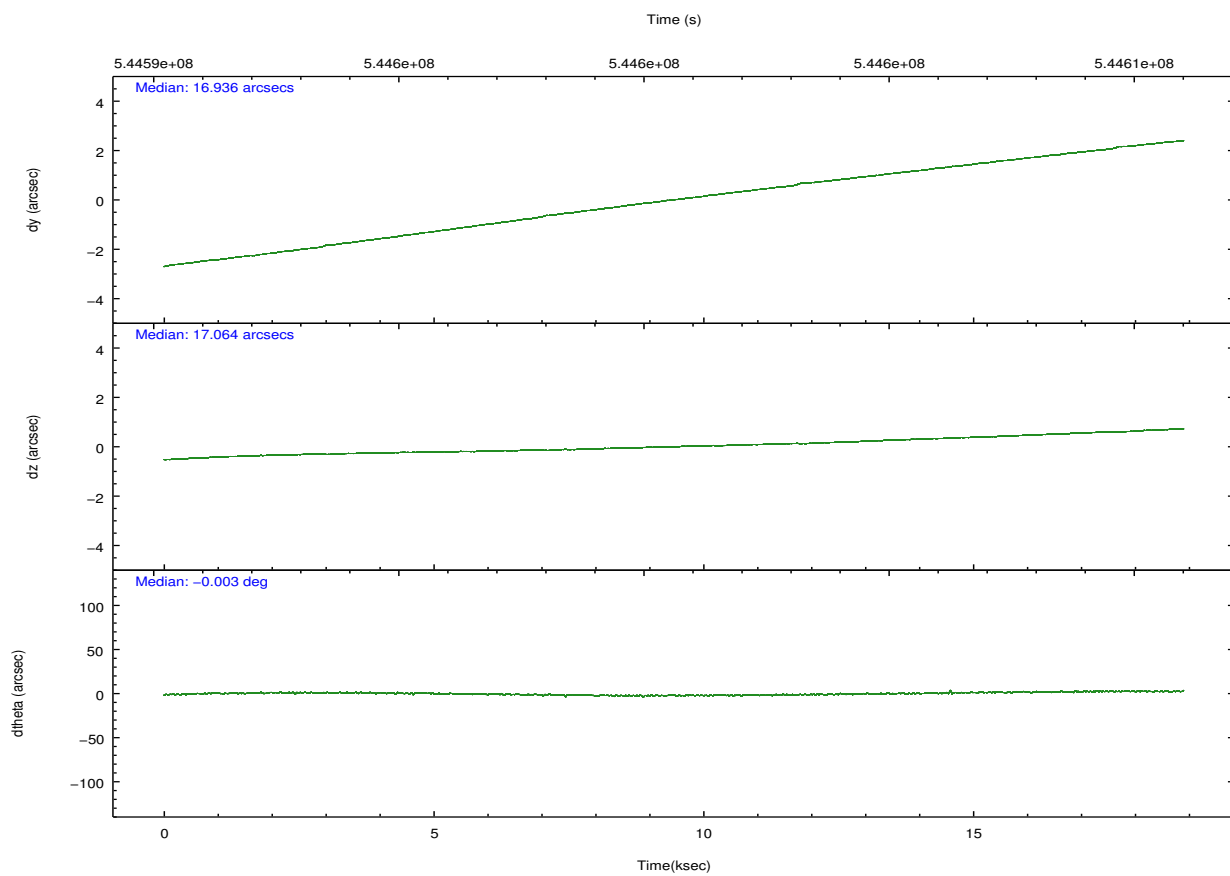
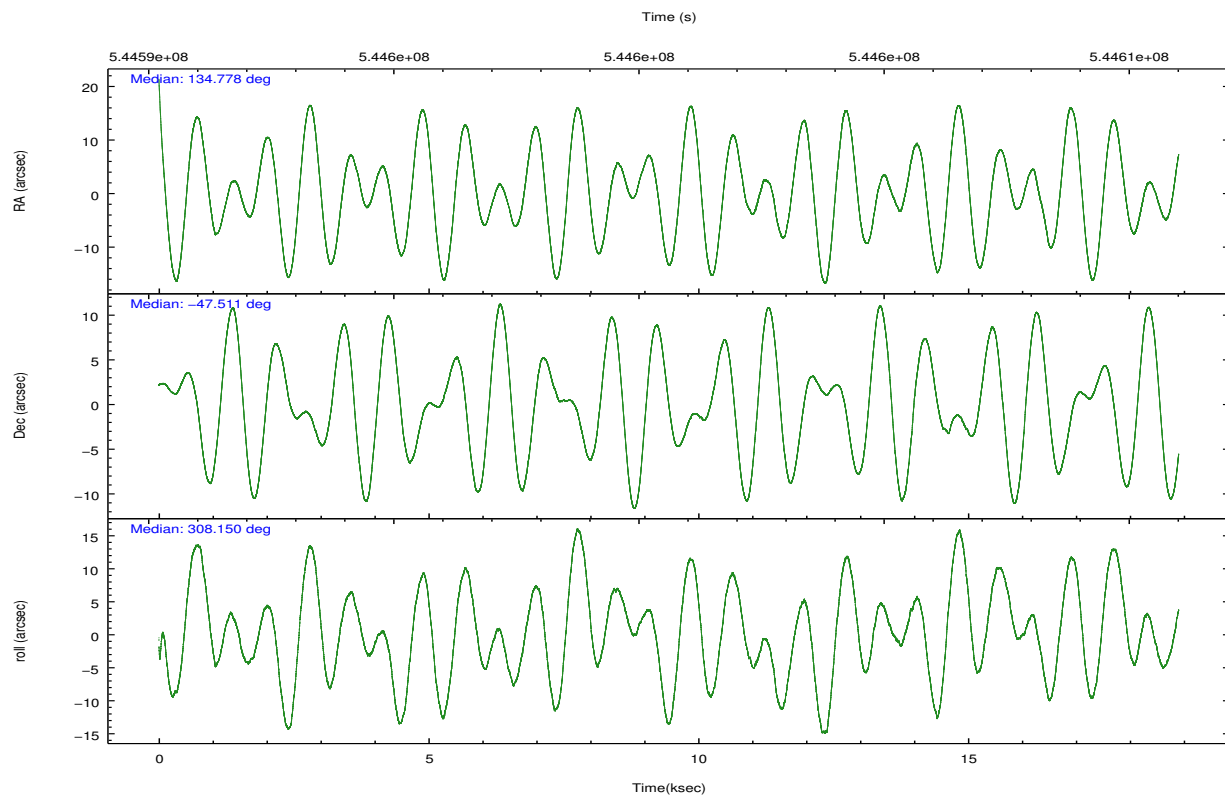
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-456789	ACIS-456789
Grating	HETG	HETG
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	134.740020	134.777908188804
[deg] Pointing Dec	-47.501223	-47.51111237756223
[deg] Pointing Roll	307.975438	308.1600031477445
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	544591960.184000	544590545.28158
Observation start date	2015-04-05T03:31:33	2015-04-05T03:09:05
[s] Observation end time (MET)	544610060.184000	544611096.0202399
Observation end date	2015-04-05T08:33:13	2015-04-05T08:51:36
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
CCD I0 on	N	N
CCD I1 on	N	N
CCD I2 on	N	N
CCD I3 on	N	N
CCD S0 on	O1	Y
CCD S1 on	Y	Y
CCD S2 on	Y	Y
CCD S3 on	Y	Y
CCD S4 on	Y	Y
CCD S5 on	O2	Y
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



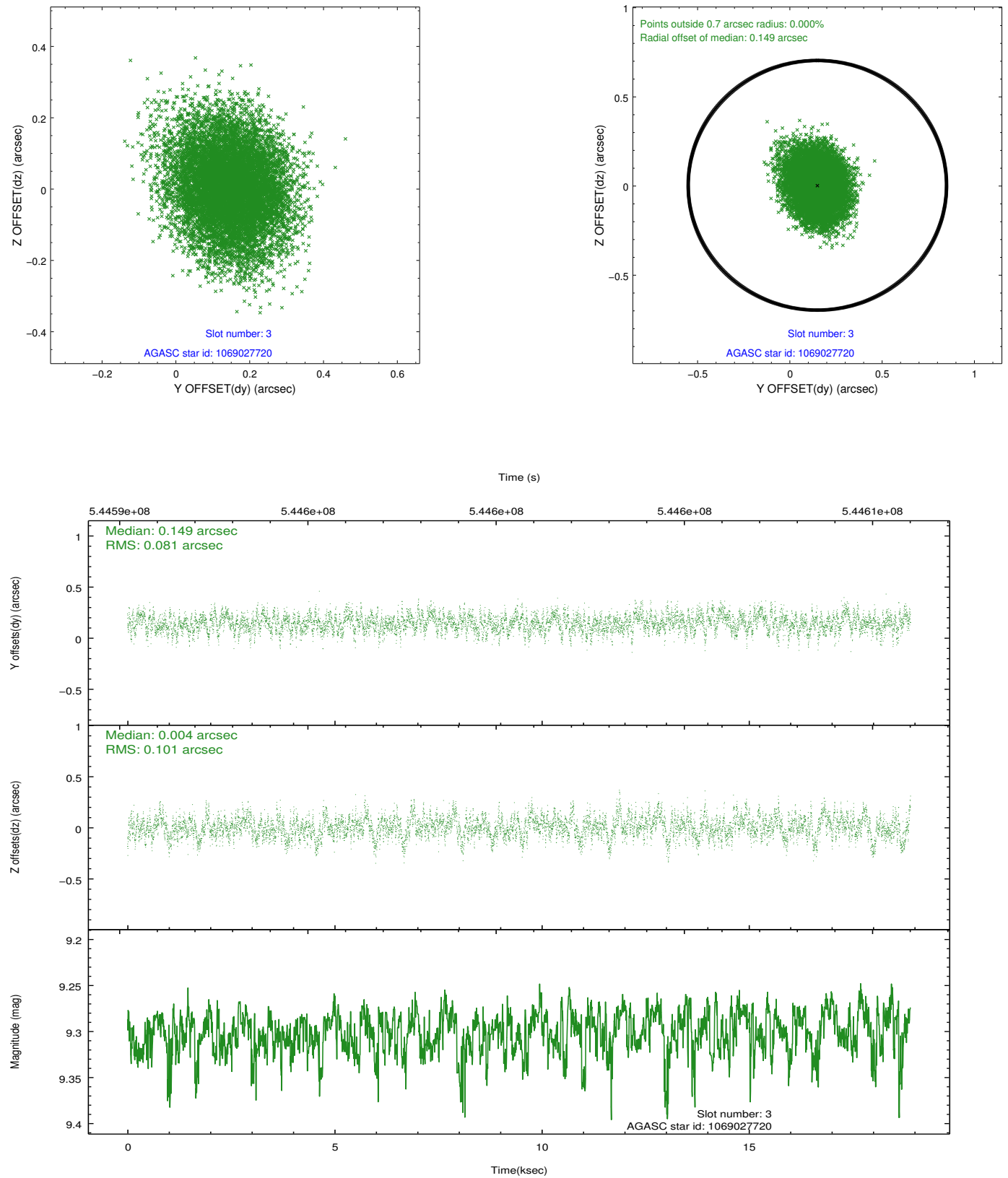


### Slot Statistics

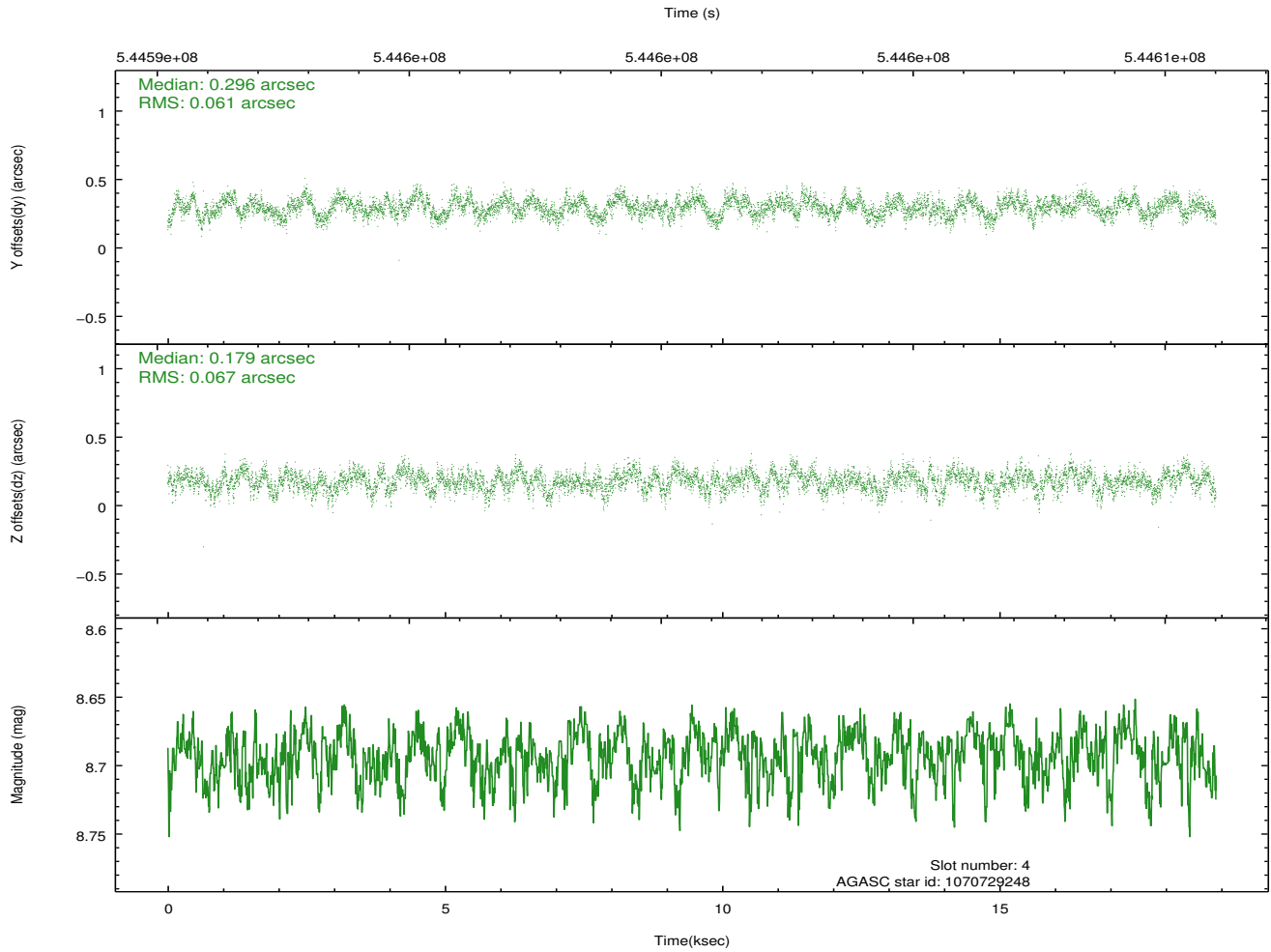
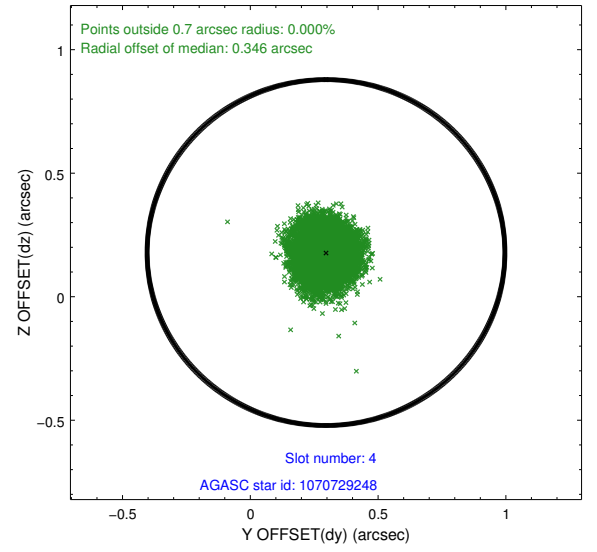
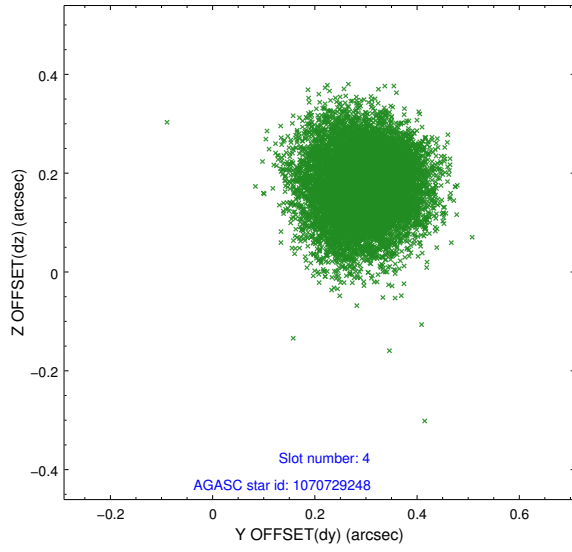
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.96	4610	-0.142	-0.085	0.015	0.035	0.000000	0.000000	-770.08	-1738.56
1	FID		ACIS-S-4	7.04	4610	0.188	0.071	0.014	0.035	0.000000	0.000000	2143.48	169.79
2	FID		ACIS-S-6	7.18	4610	-0.073	0.021	0.012	0.020	0.000000	0.000000	392.30	807.41
3	GUIDE	used	1069027720	9.30	9212	0.149	0.004	0.137	0.225	134.335715	-48.204942	1402.76	-2324.76
4	GUIDE	used	1070729248	8.69	9220	0.296	0.179	0.097	0.152	135.048995	-47.118313	-619.59	1444.01
5	GUIDE	used	1070729592	7.37	9220	-0.405	-0.065	0.066	0.104	135.107946	-47.337671	89.49	1068.85
6	GUIDE	used	1070731648	8.02	9215	-0.011	-0.030	0.075	0.123	135.285038	-47.251382	113.38	1600.55
7	GUIDE	used	1069026568	7.14	9220	-0.025	-0.089	0.068	0.112	134.843519	-48.291320	2395.72	-1554.24

## 2.4 Star Slots

### 2.4.1 Slot 3

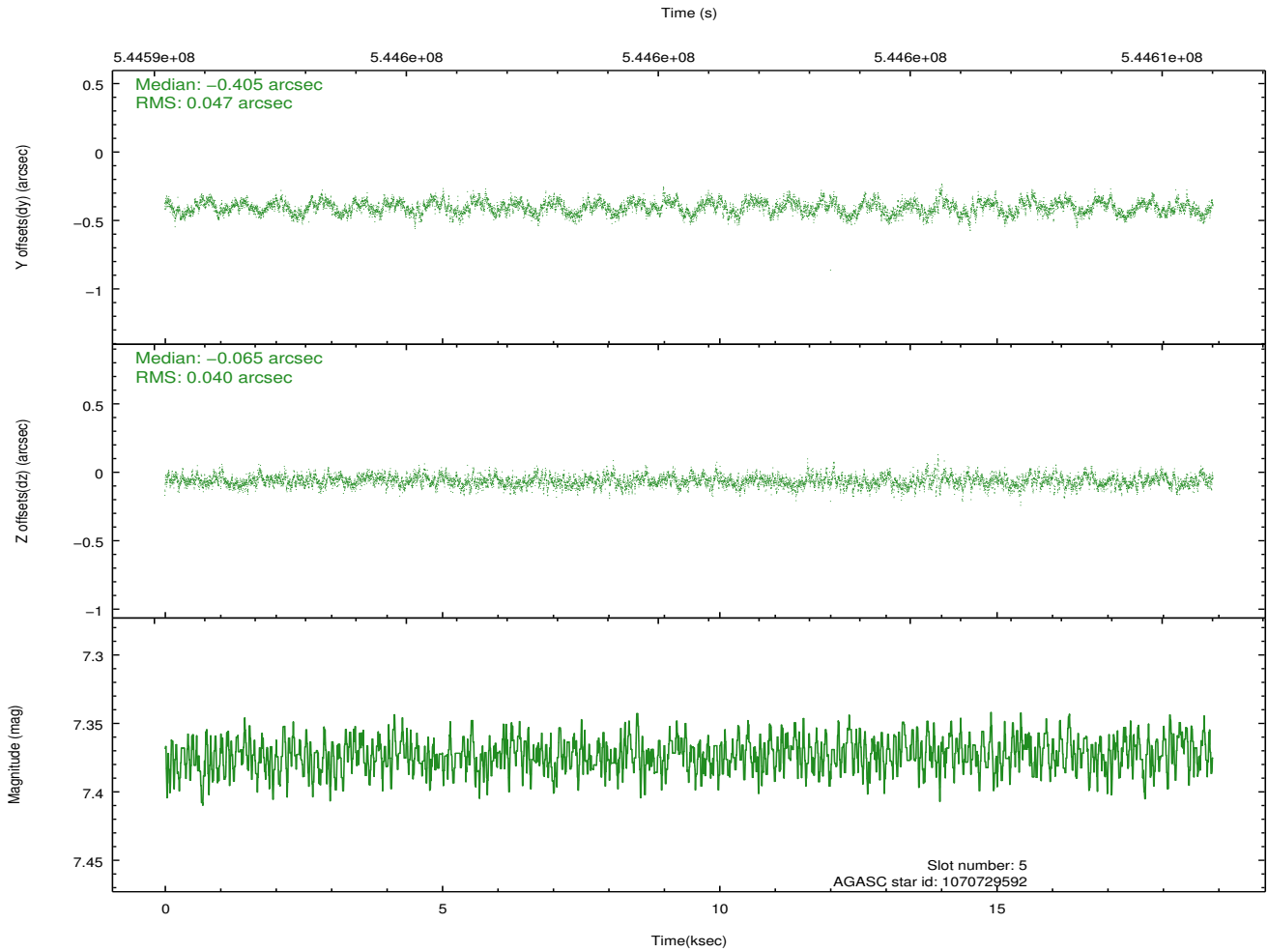
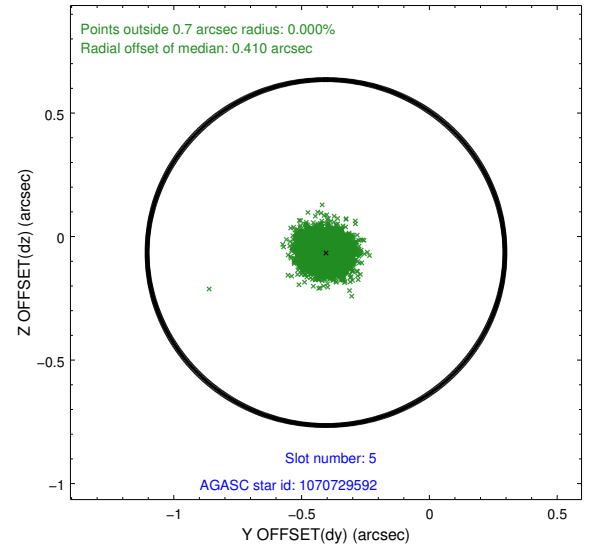
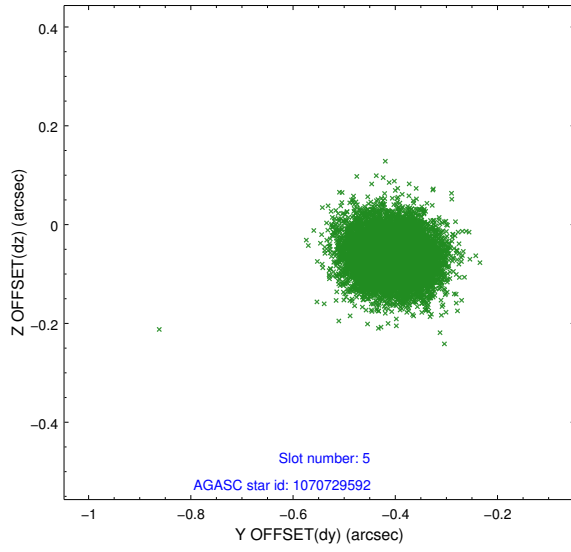


## 2.4.2 Slot 4

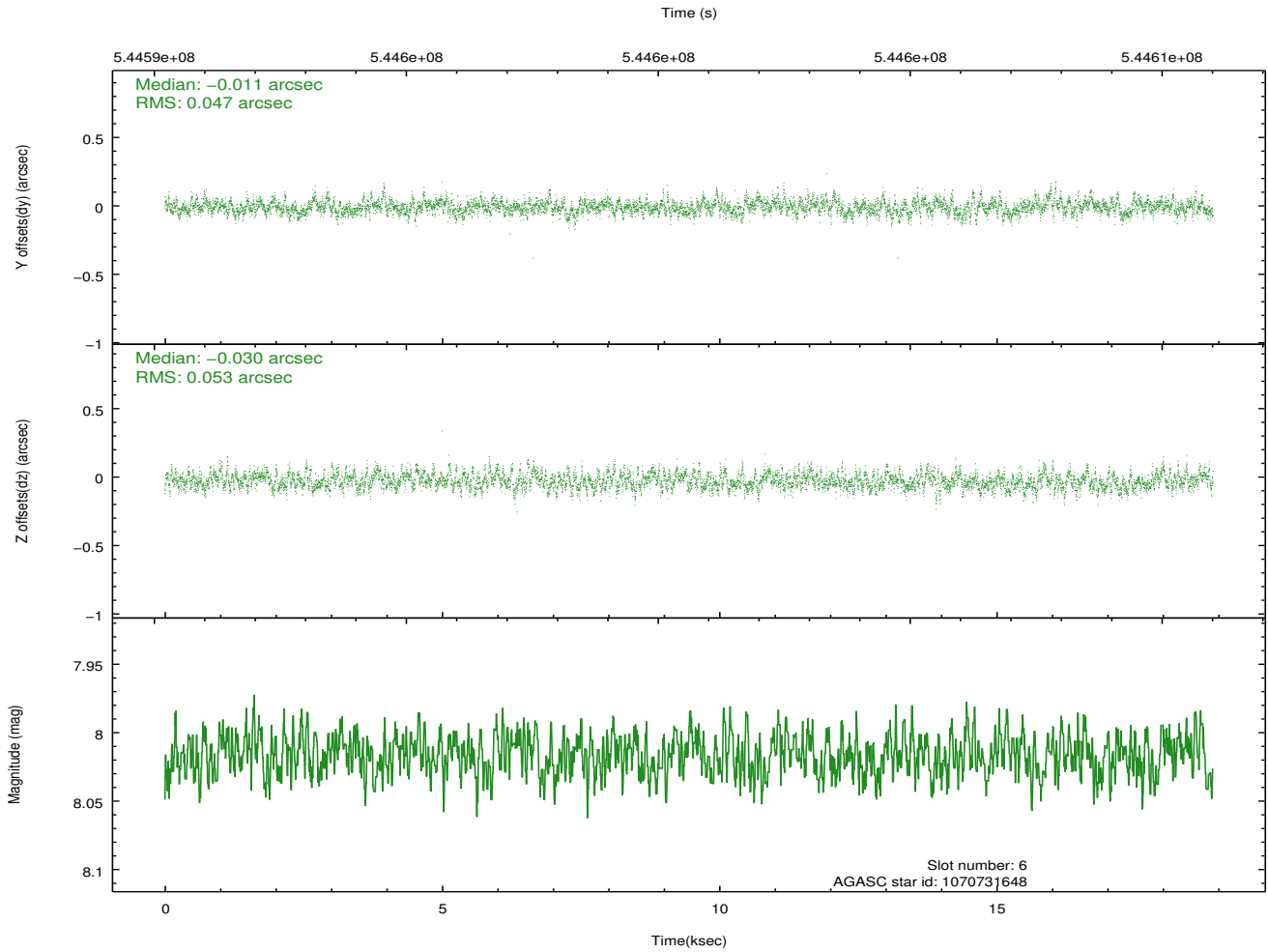
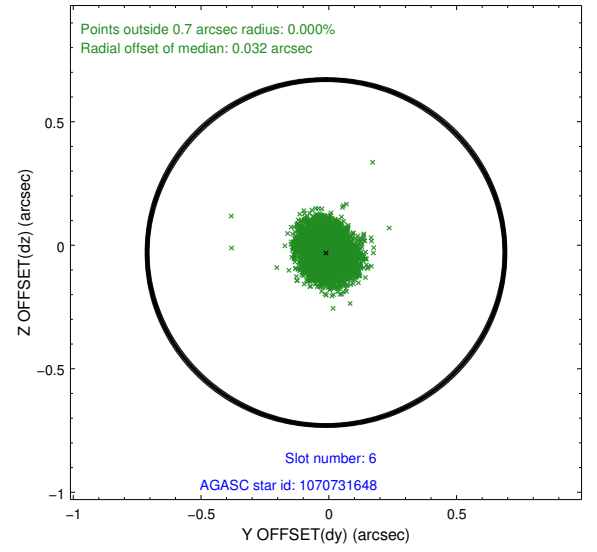
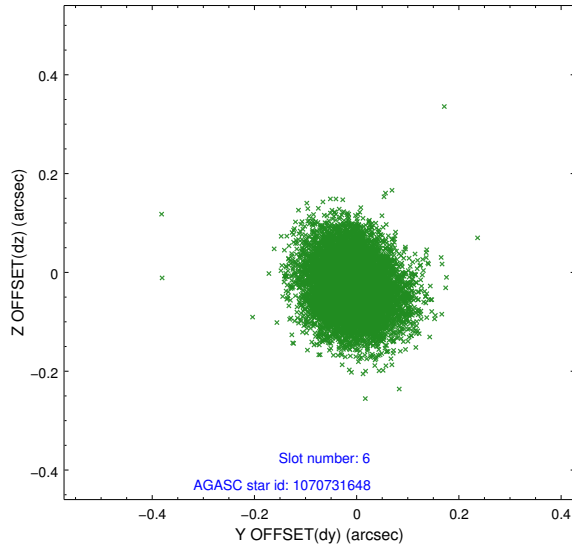




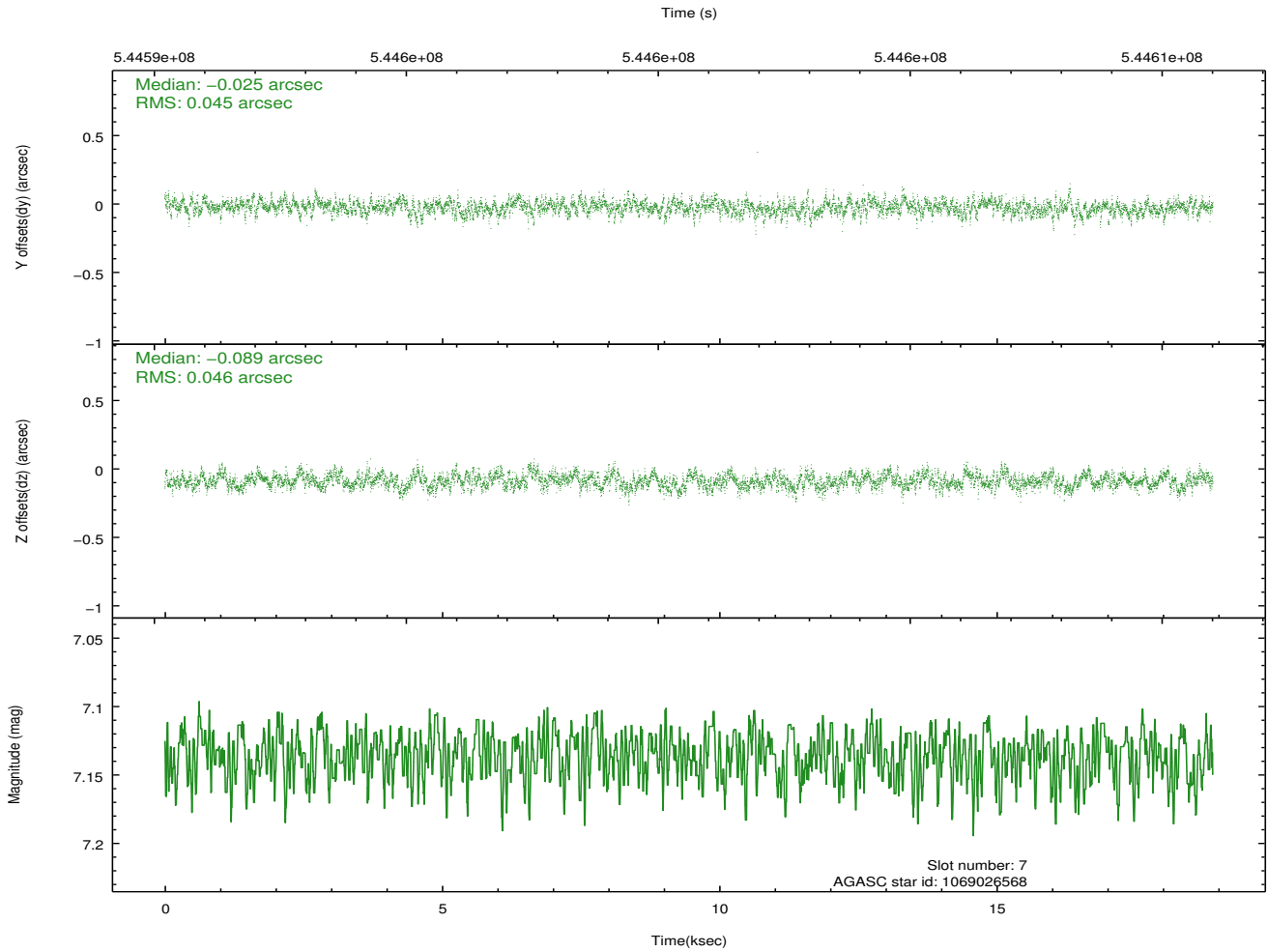
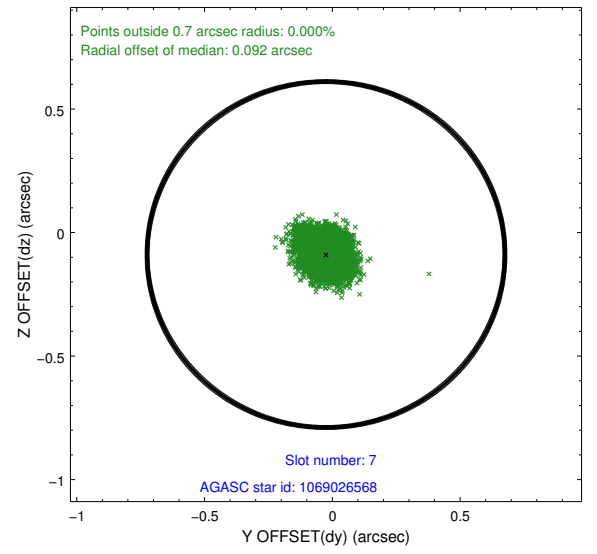
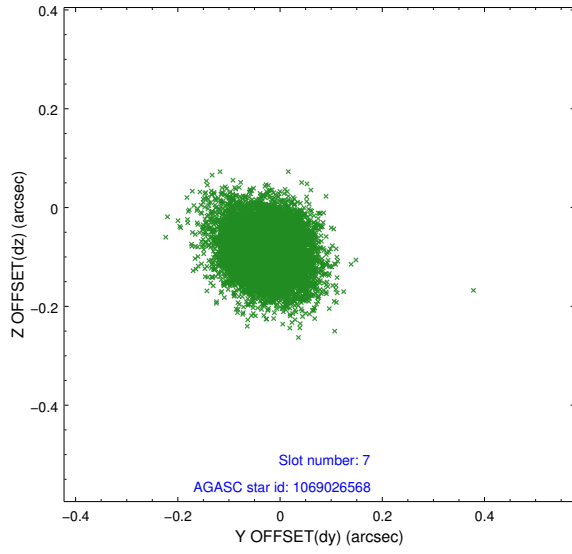
### 2.4.3 Slot 5



## 2.4.4 Slot 6

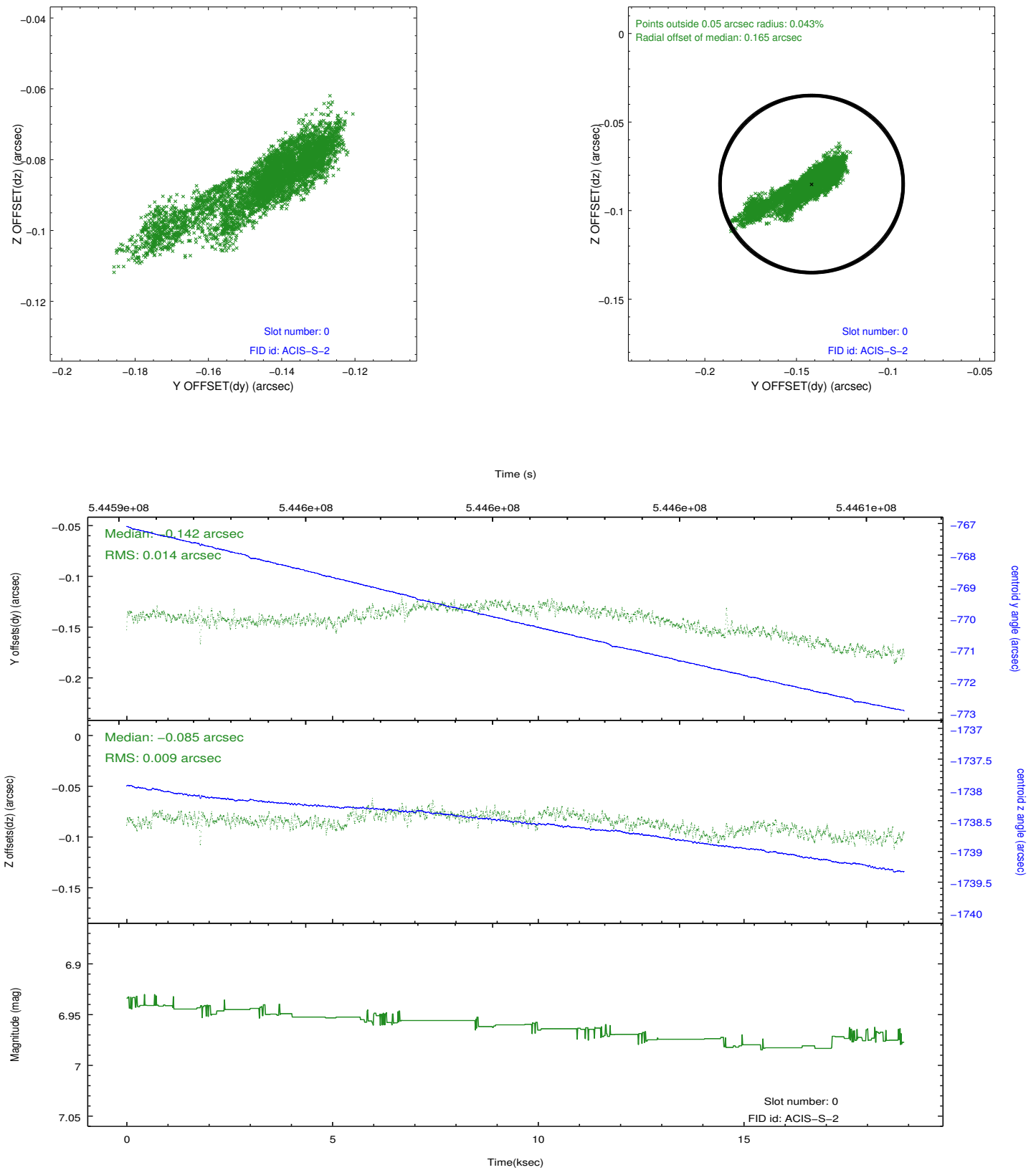


## 2.4.5 Slot 7

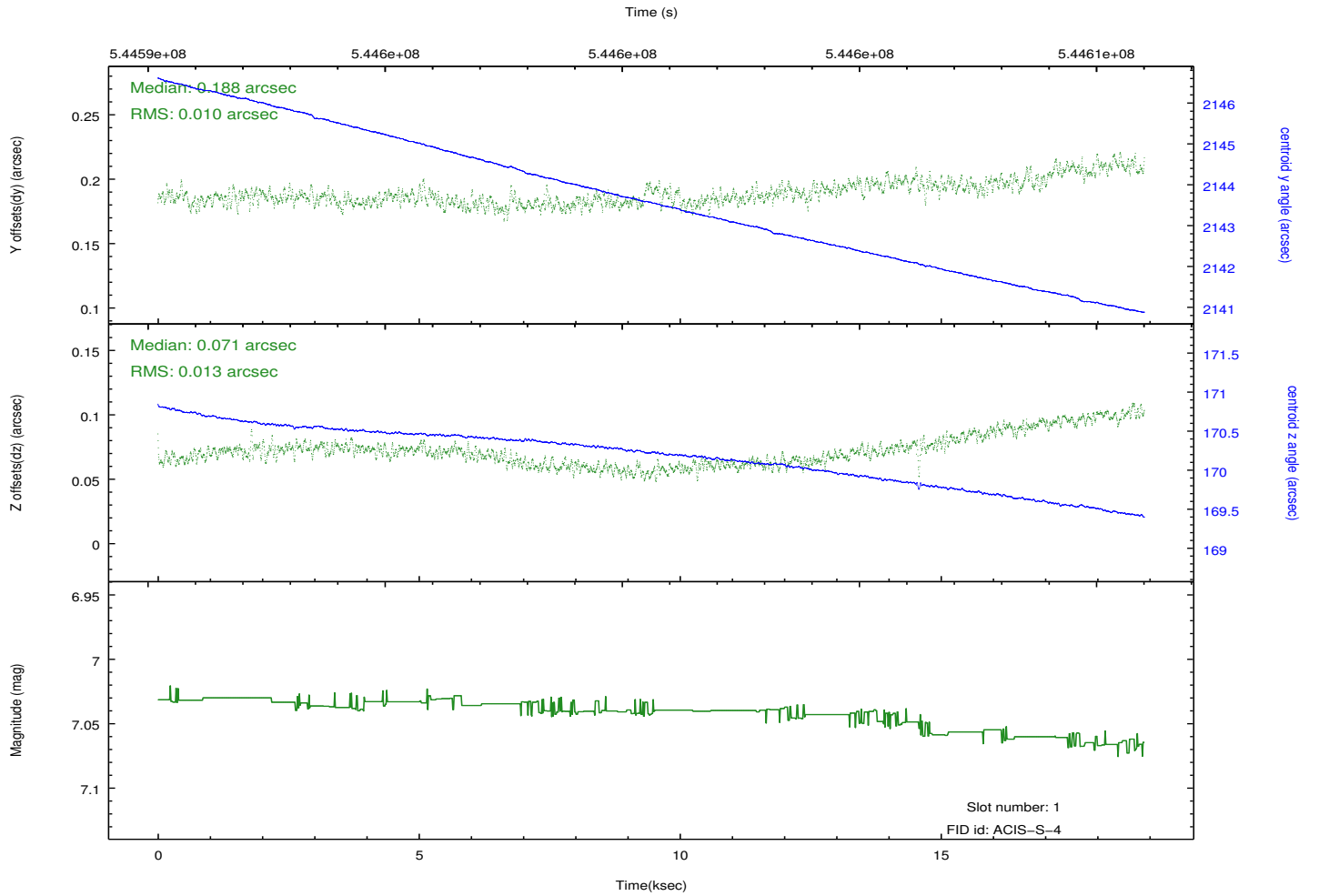
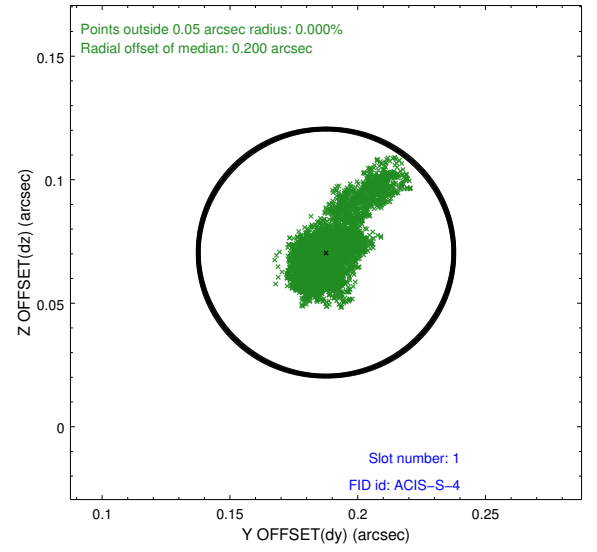
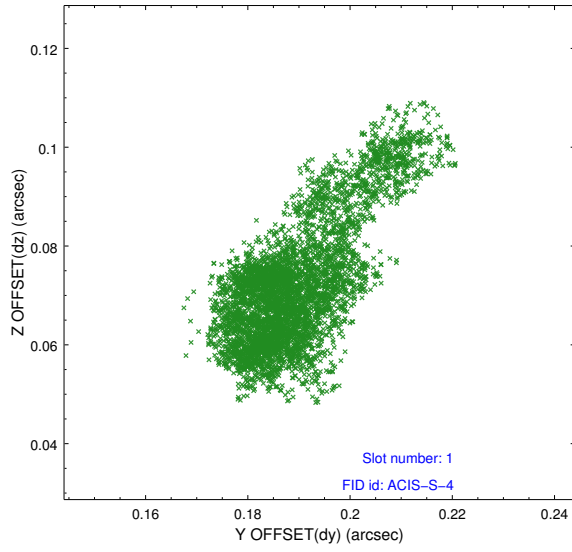


## 2.5 FID Slots

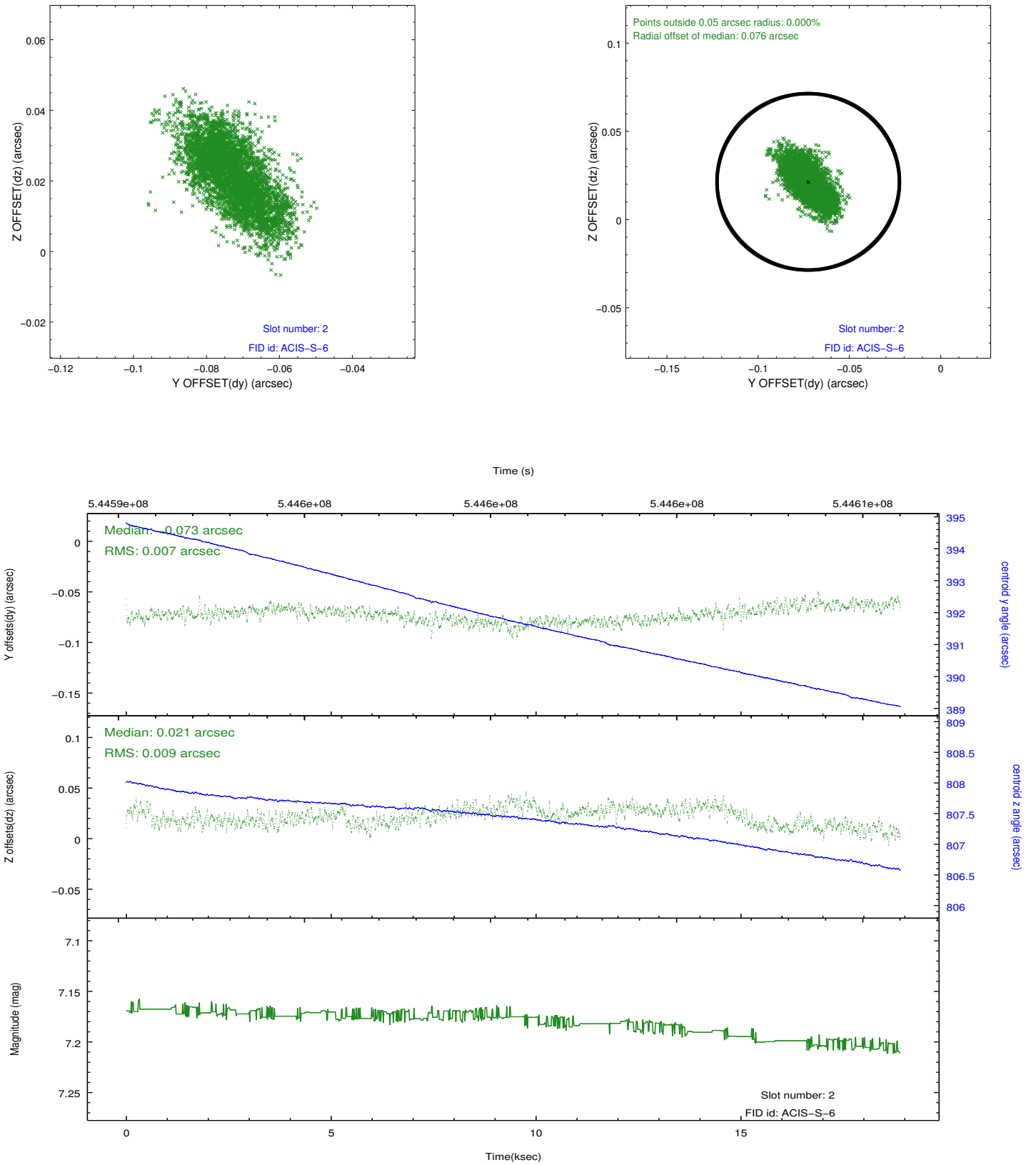
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

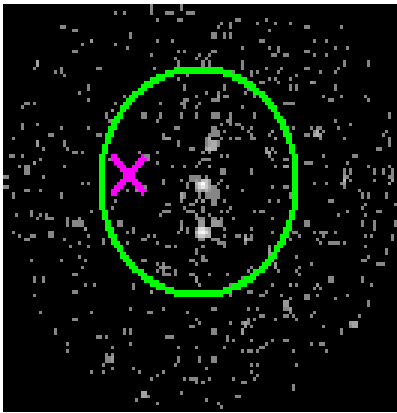


# 3 Gratings

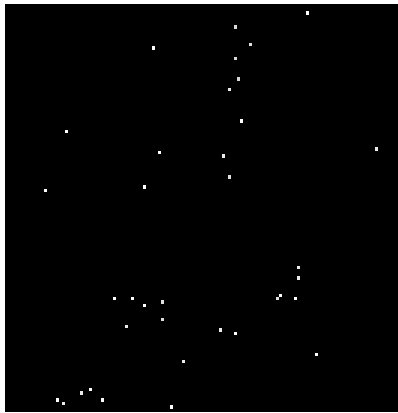
## 3.1 HEG Arm



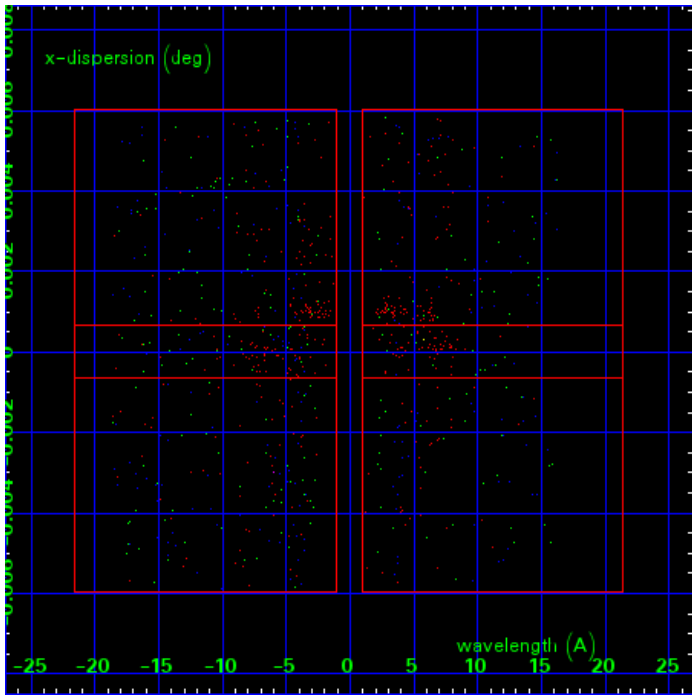
HEG Order Sort 123



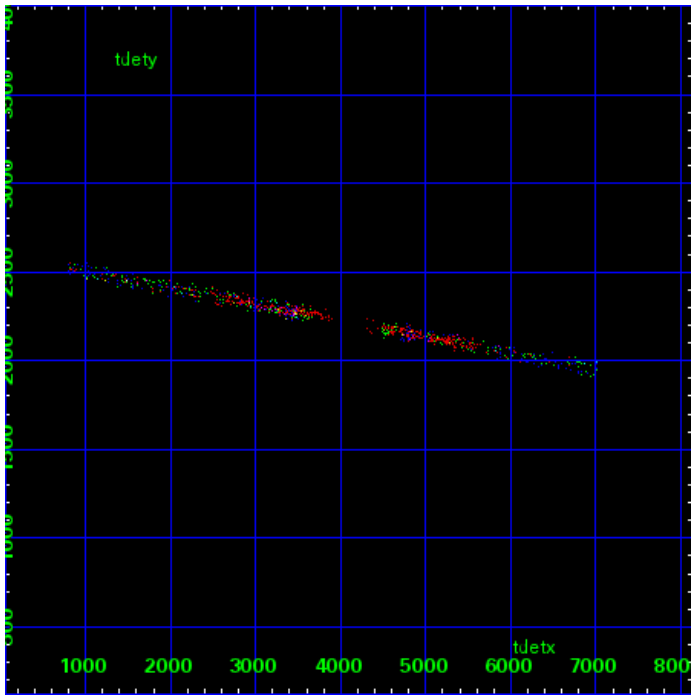
HEG Zero Order



HEG Order Sort ALL

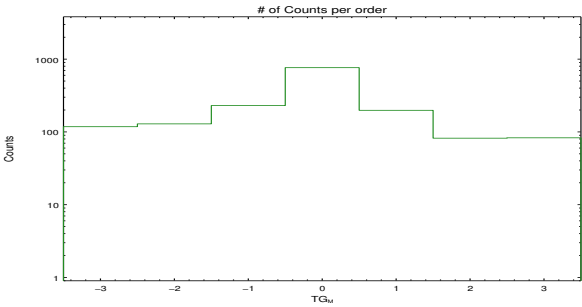


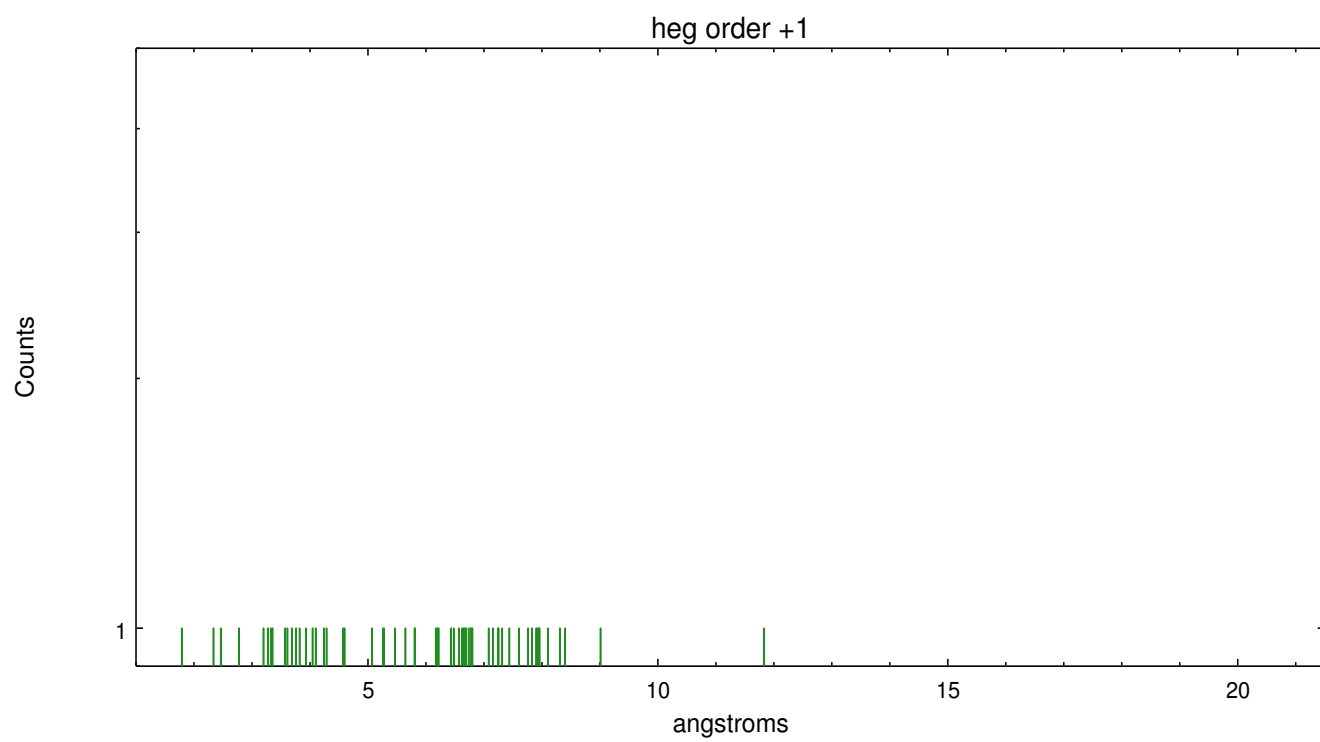
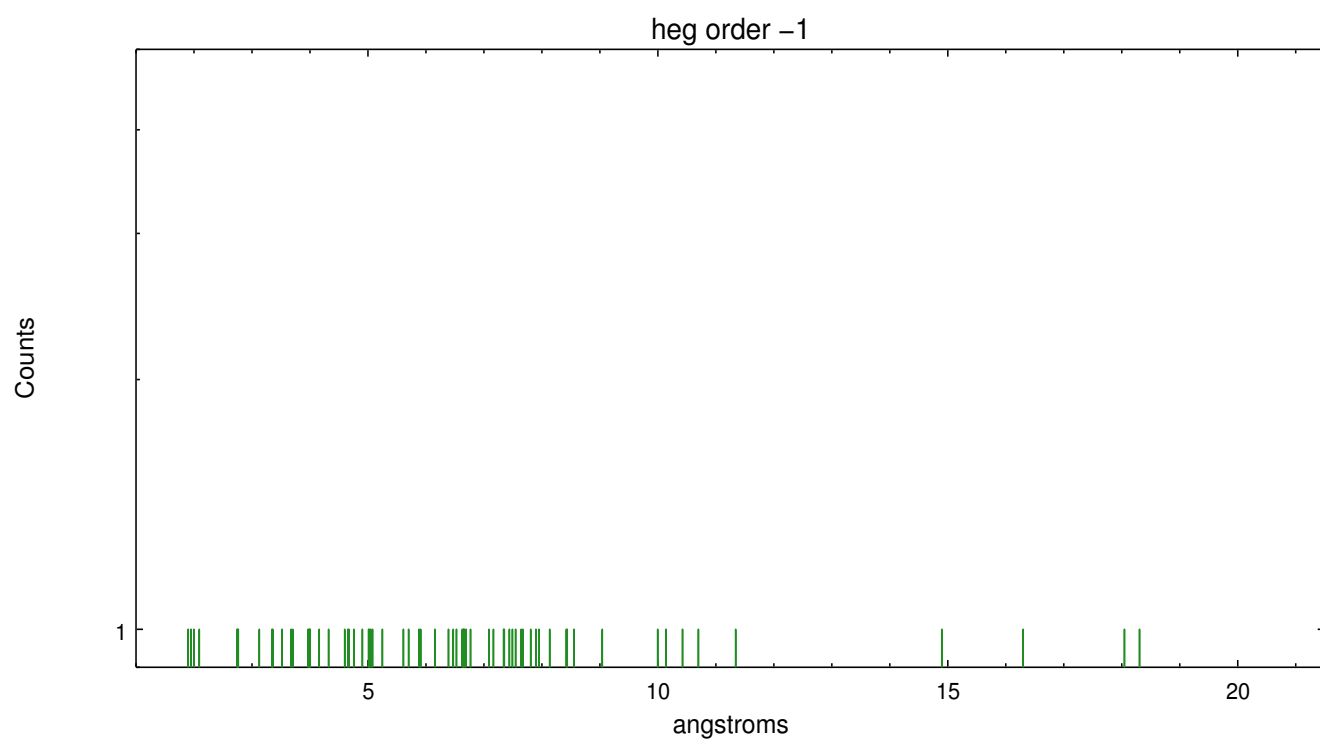
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	118	129	230	764	198	82	83



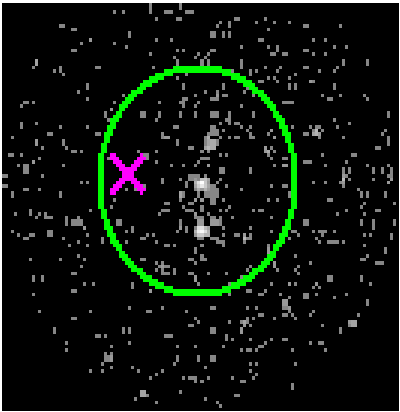




3.2 MEG Arm



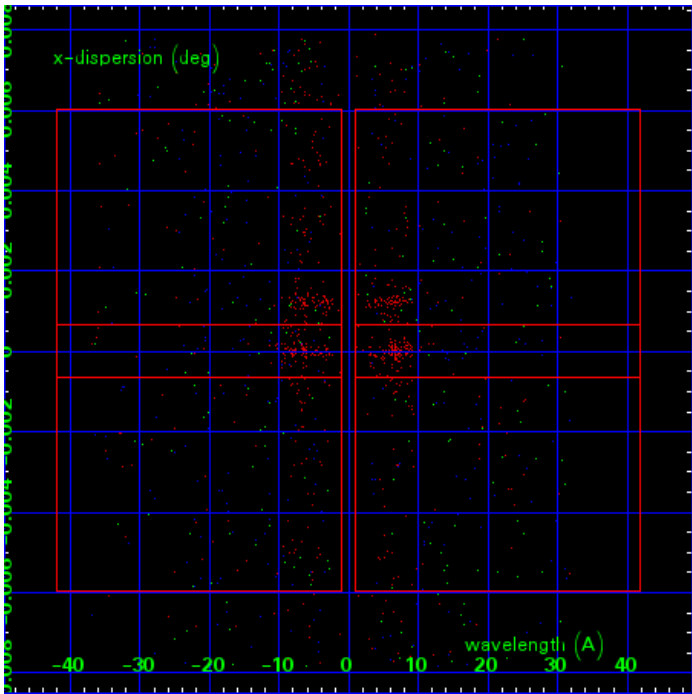
MEG Order Sort 123



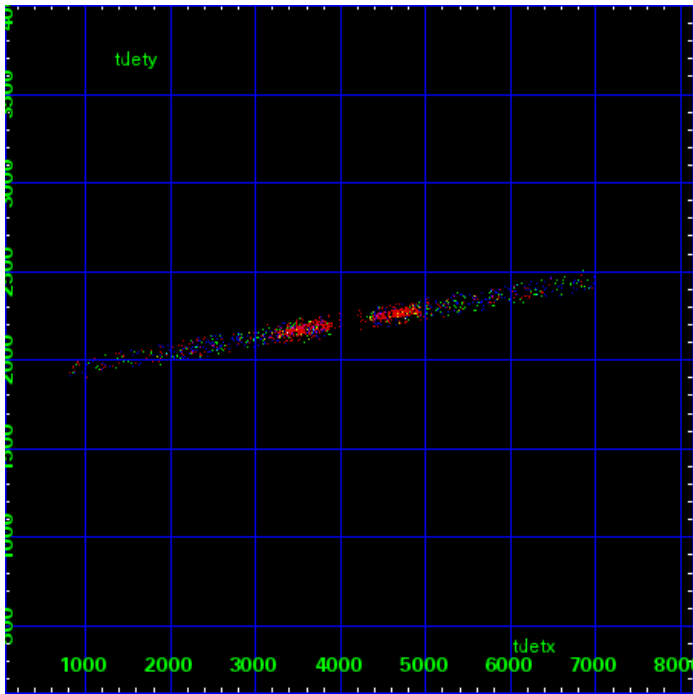
MEG Zero Order



MEG Order Sort ALL

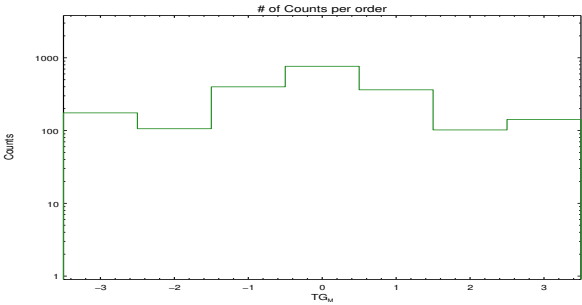


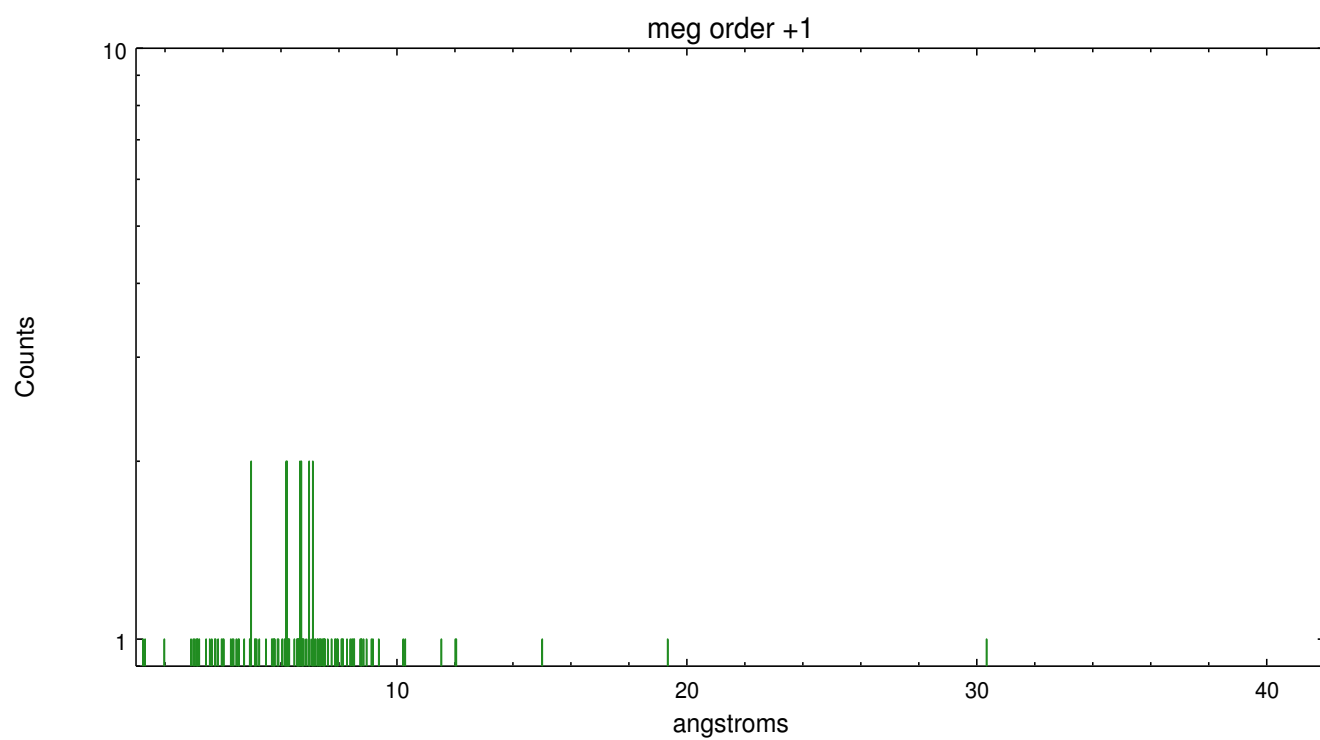
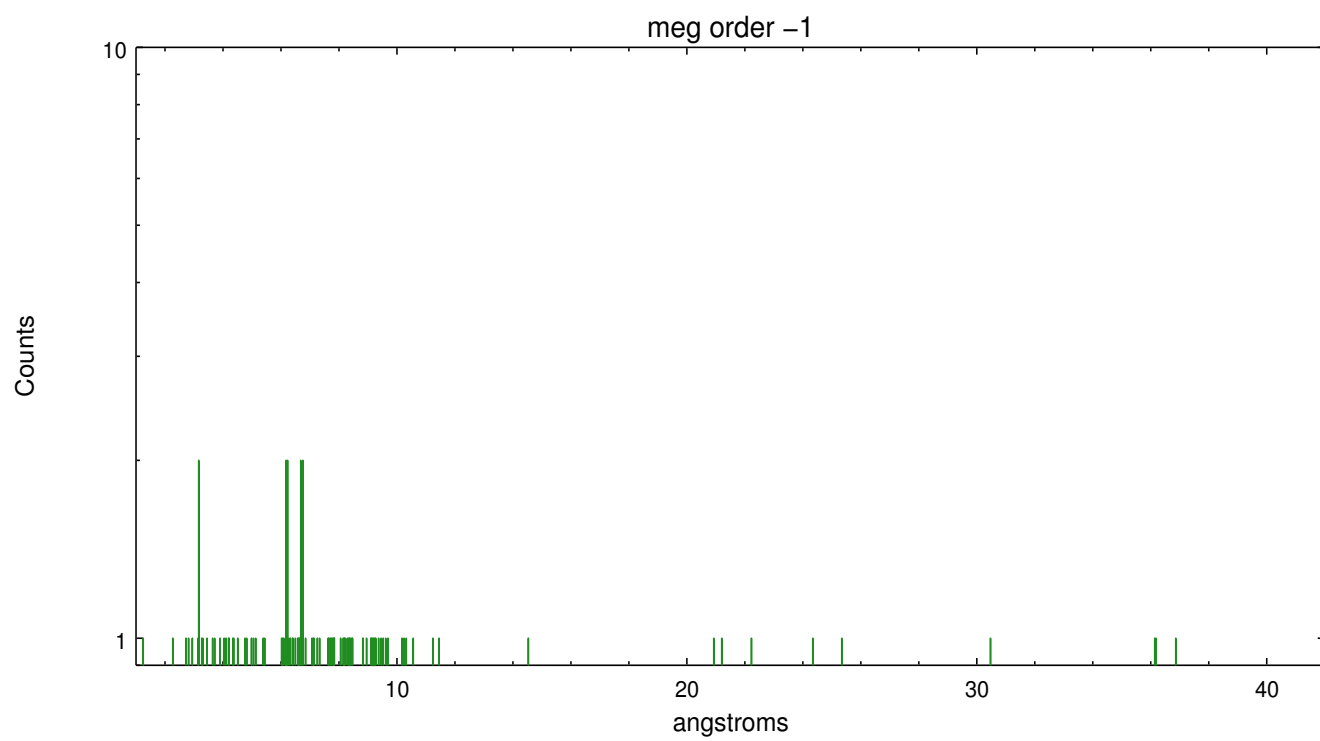
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	175	106	399	764	363	102	142





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.04.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	18.060800269127

## A.2 Comments

Software was unable to locate target of interest for zeroth order position. Zeroth order position manually set to coordinates as measured by eye for the target. Another source is within about 5-6 arcsec of the target.