

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 1225 - L2 Version 4

Chandra X-Ray Center

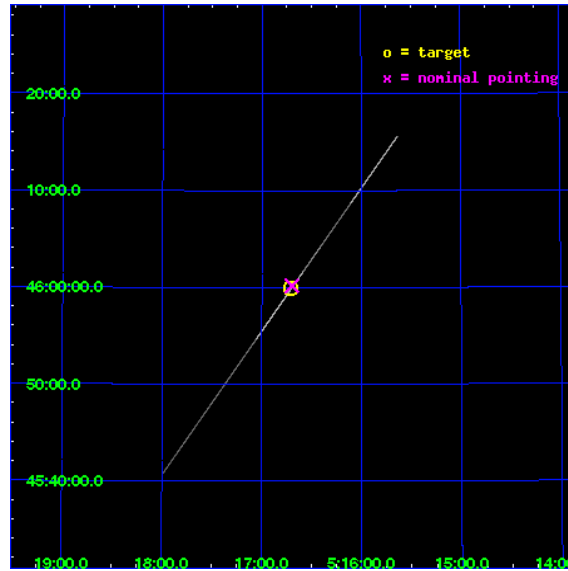
L2 Processing Date : Nov 21 2009

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# 1 Front

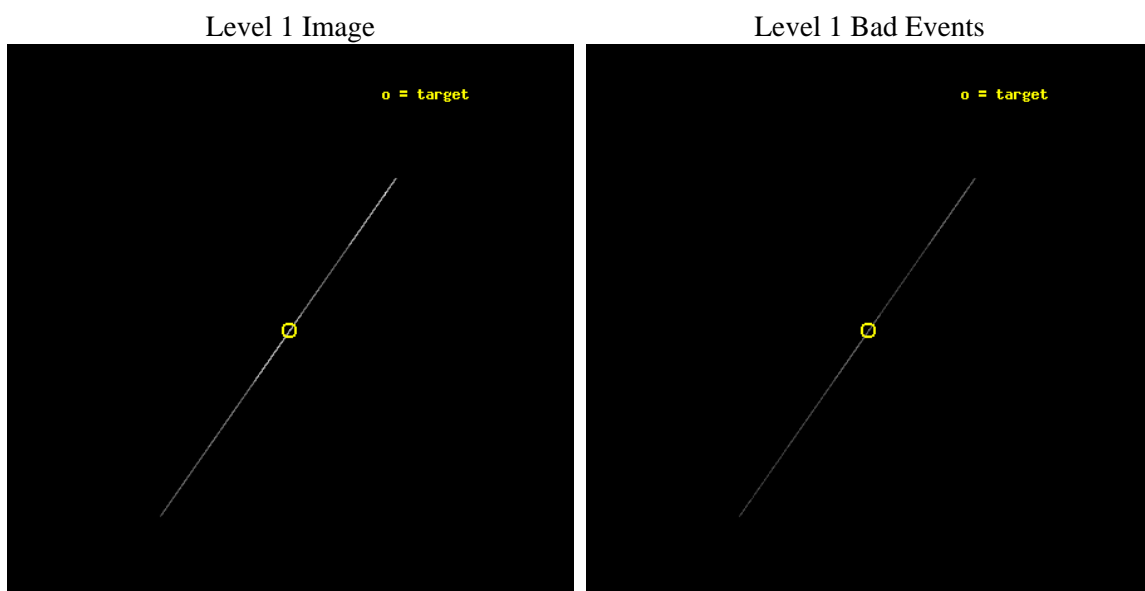
seq_num	280175	Sequence number
obs_id	1225	Observation id
title	&#160	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	CAPELLA	Source name
ra_targ	79.17625	Observer's specified target RA
dec_targ	45.997889	Observer's specified target Dec
ra_nom	79.174642978626	Nominal RA
dec_nom	46.002802875374	Nominal Dec
roll_nom	125.13476239856	Nominal Roll
revision	4	Processing version of data
ontime	6175.5	Sum of GTIs [s]
livetime	6151.376953125	Livetime [s]
ontime5	6175.5	Sum of GTIs [s]
ontime6	6175.5	Sum of GTIs [s]
ontime7	6175.5	Sum of GTIs [s]
ontime8	6175.5	Sum of GTIs [s]
ontime9	6174.0394257531	Sum of GTIs [s]
l2events	470401	Number of level 2 events



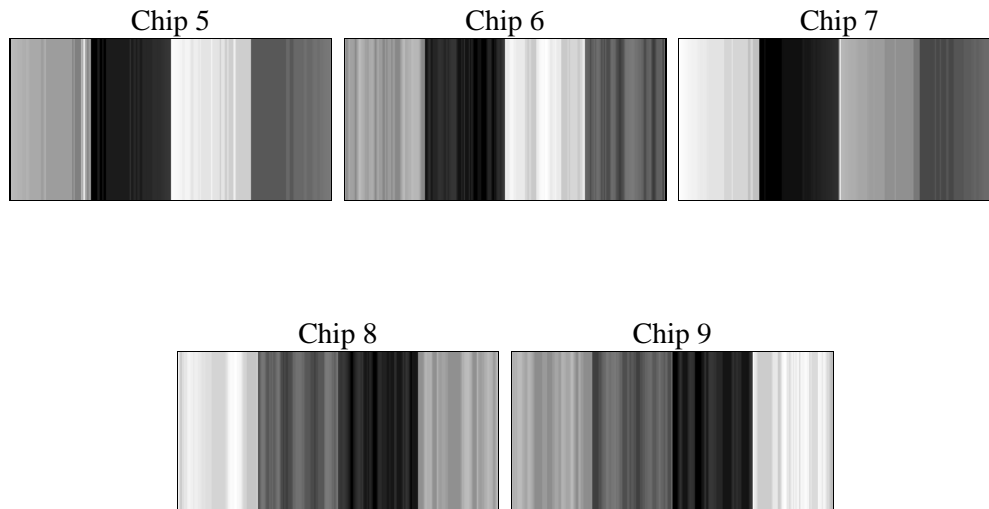
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6000.000000	Scheduled observation exposure time
ascdsver	8.1.1	ASCDS version number	ontime	6175.5	Sum of GTIs [s]
caldbver	4.1.4	&#160	ontime5	6175.5	Sum of GTIs [s]
date	2009-11-21T12:25:38	Date and time of file creation	ontime6	6175.5	Sum of GTIs [s]
revision	4	Processing version of data	ontime7	6175.5	Sum of GTIs [s]
			ontime8	6175.5	Sum of GTIs [s]
			ontime9	6174.0394257531	Sum of GTIs [s]
			l1events	625844	Number of level 1 events

### 2.1.4 Events

	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	286955	24823	278723	22439	12904
rejected events	5447	1228	5450	1644	1202
rejected %	1%	4%	1%	7%	9%

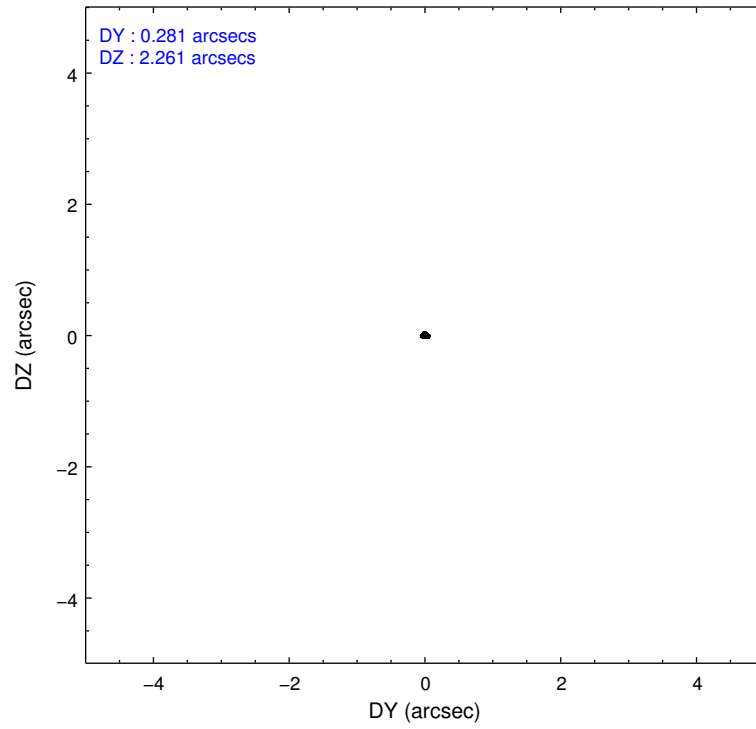
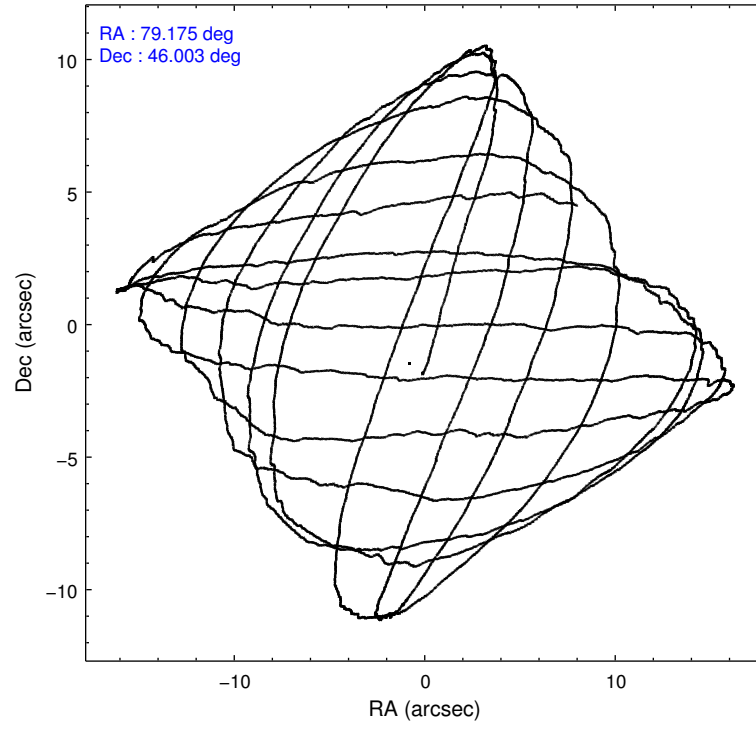
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	104561	9055	43739	5385	2039
	36%	36%	15%	23%	15%
grade 1 events	206	36	184	55	24
	0%	0%	0%	0%	0%
grade 2 events	73562	10096	57505	8070	5692
	25%	40%	20%	35%	44%
grade 3 events	10549	1552	23275	2090	1283
	3%	6%	8%	9%	9%
grade 4 events	9959	1563	22532	2003	1468
	3%	6%	8%	8%	11%
grade 5 events	5142	1185	5160	1582	1175
	1%	4%	1%	7%	9%
grade 6 events	82976	1336	126328	3254	1223
	28%	5%	45%	14%	9%
grade 7 events	0	0	0	0	0
	0%	0%	0%	0%	0%

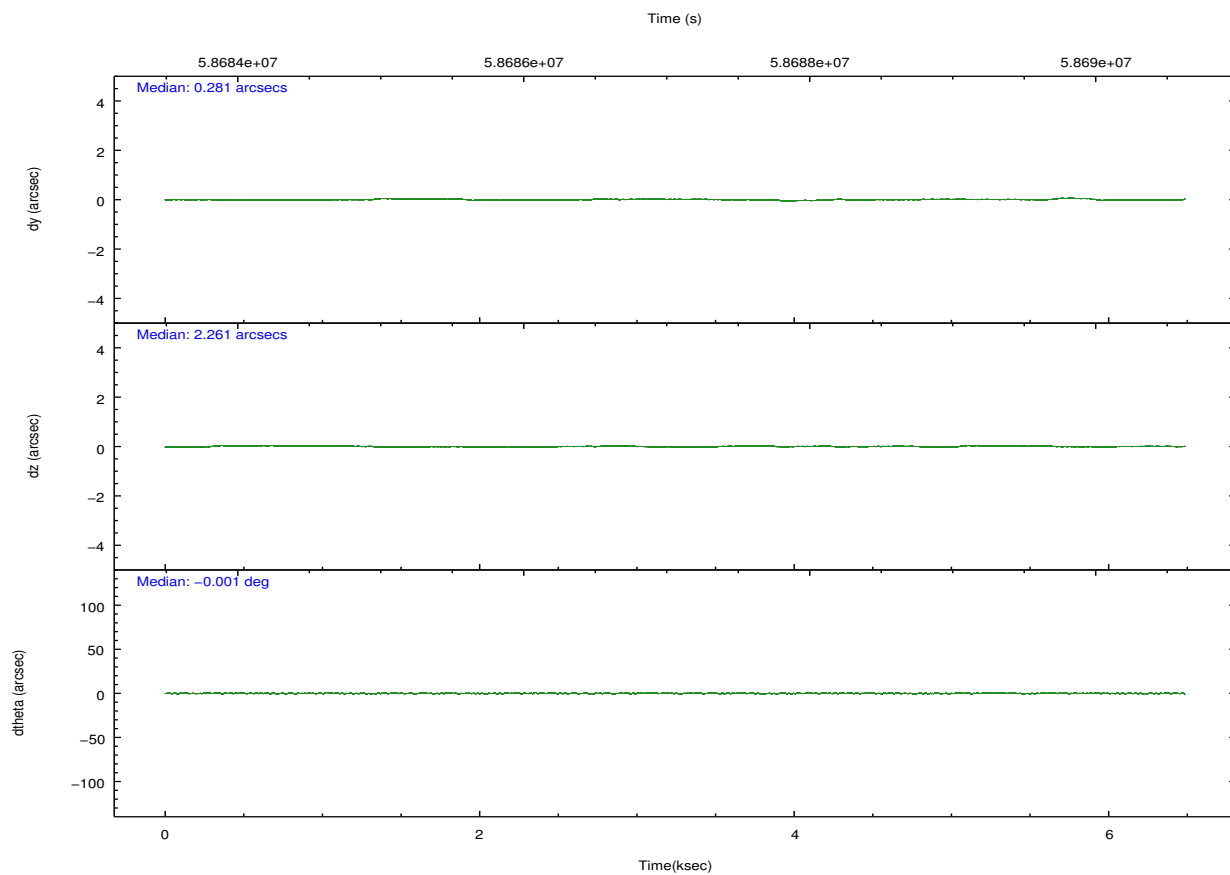
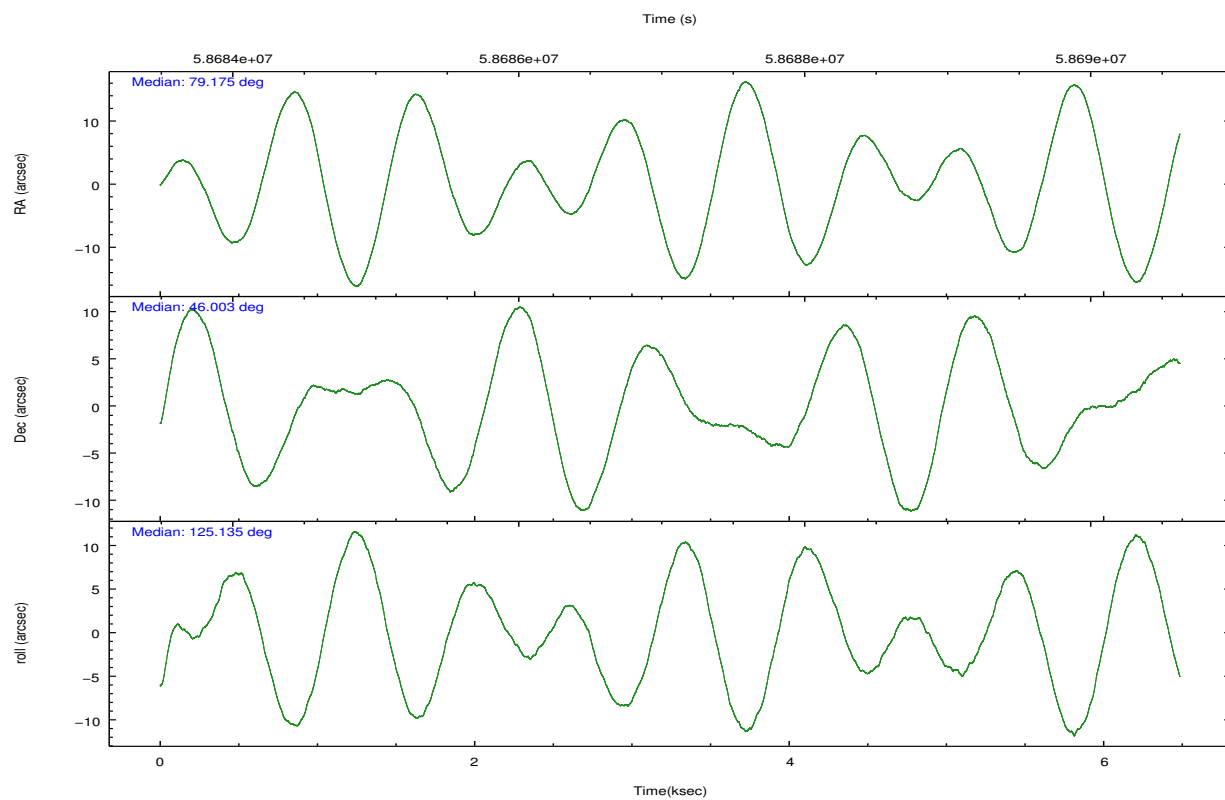


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-56789	ACIS-56789	Obspar file type	PREDICTED	ACTUAL
Grating	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	CC33_FAINT	CC33_FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	79.210679	79.17464297862611	Subarray requested	NONE	NONE
Pointing Dec	45.991025	46.00280287537404	Alternating exposures requested	N	N
Pointing Roll	124.952211	125.1347623985581	Primary exposure time	0.000000	0
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	58684301.184000	58683635.014118			
Observation start date	1999-11-11T05:10:37	1999-11-11T05:00:35			
Observation end time	58690301.184000	58691280.489394			
Observation end date	1999-11-11T06:50:37	1999-11-11T07:08:00			
Read mode	CONTINUOUS	CONTINUOUS			

## 2.3 Aspect



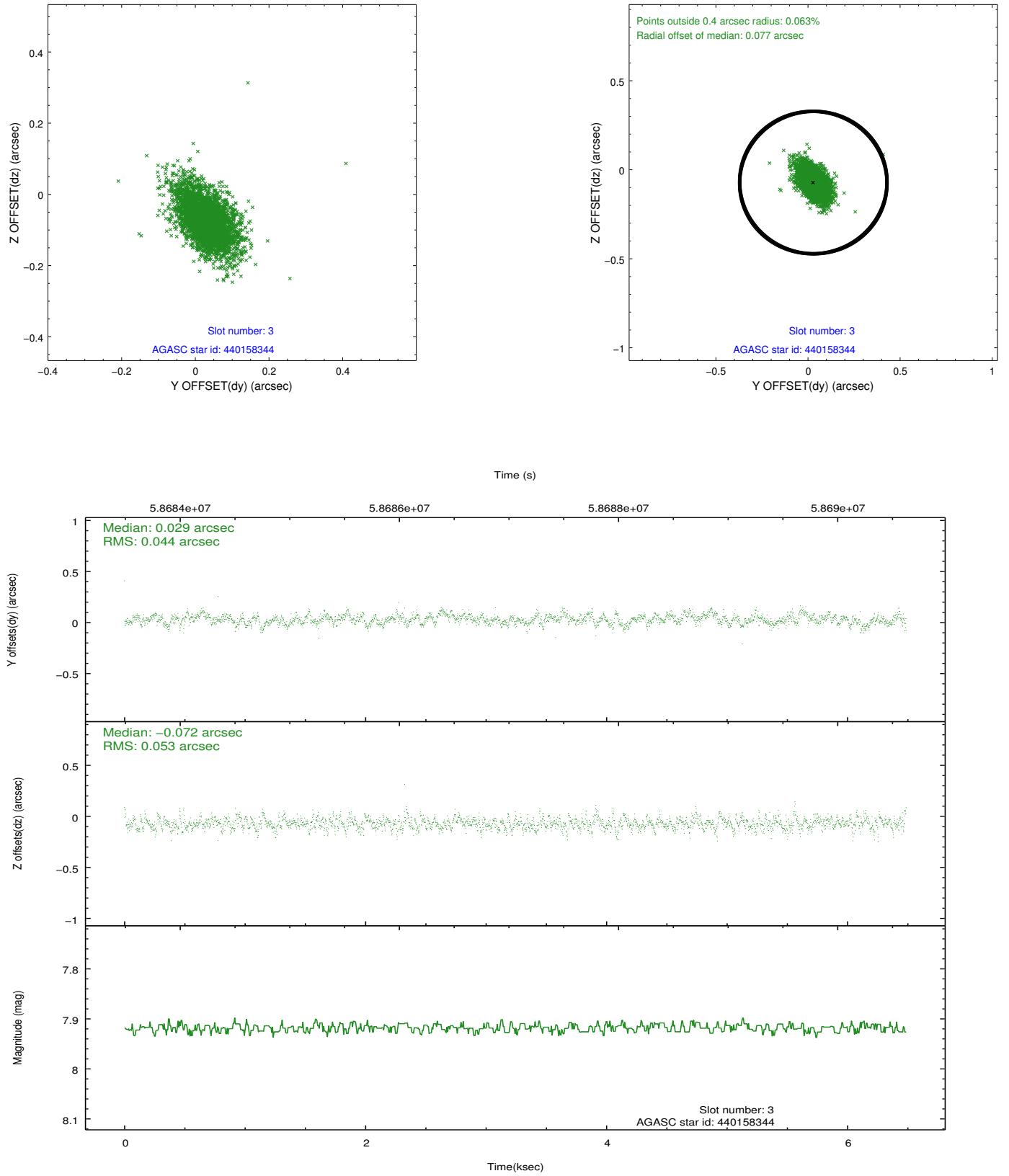


Slot Statistics

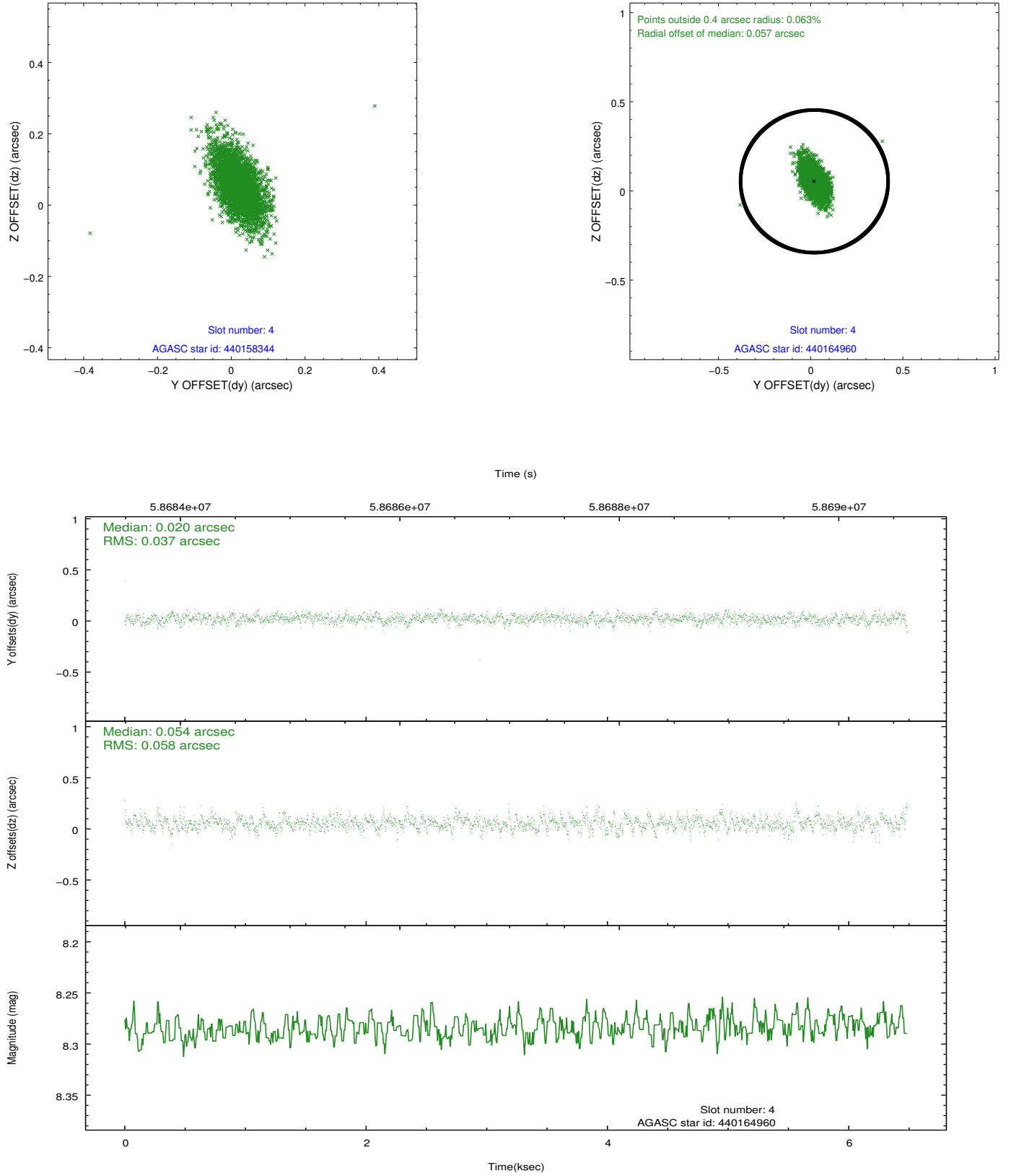
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-3	7.35	3164	-0.041	0.021	0.007	0.011	0.000000	0.000000	60.77	-2017.11
1	FID	ACIS-S-4	7.19	3164	0.103	0.013	0.005	0.010	0.000000	0.000000	2161.19	19.82
2	FID	ACIS-S-5	7.24	3164	-0.090	-0.025	0.006	0.010	0.000000	0.000000	-1804.73	14.14
3	GUIDE	440158344	7.92	3163	0.029	-0.072	0.070	0.125	79.344888	45.394991	-1954.10	951.51
4	GUIDE	440164960	8.28	3164	0.020	0.054	0.069	0.124	79.132526	46.140947	552.26	-148.58
5	GUIDE	440149808	8.42	3164	0.009	0.092	0.072	0.128	78.873930	46.405955	1703.57	-171.03
6	GUIDE	438450792	8.82	3160	-0.091	-0.138	0.081	0.138	78.654240	46.382628	1950.30	322.56
7	GUIDE	440145016	9.53	3160	0.031	0.059	0.102	0.166	80.238026	45.801940	-2022.06	-1732.13

## 2.4 Star Slots

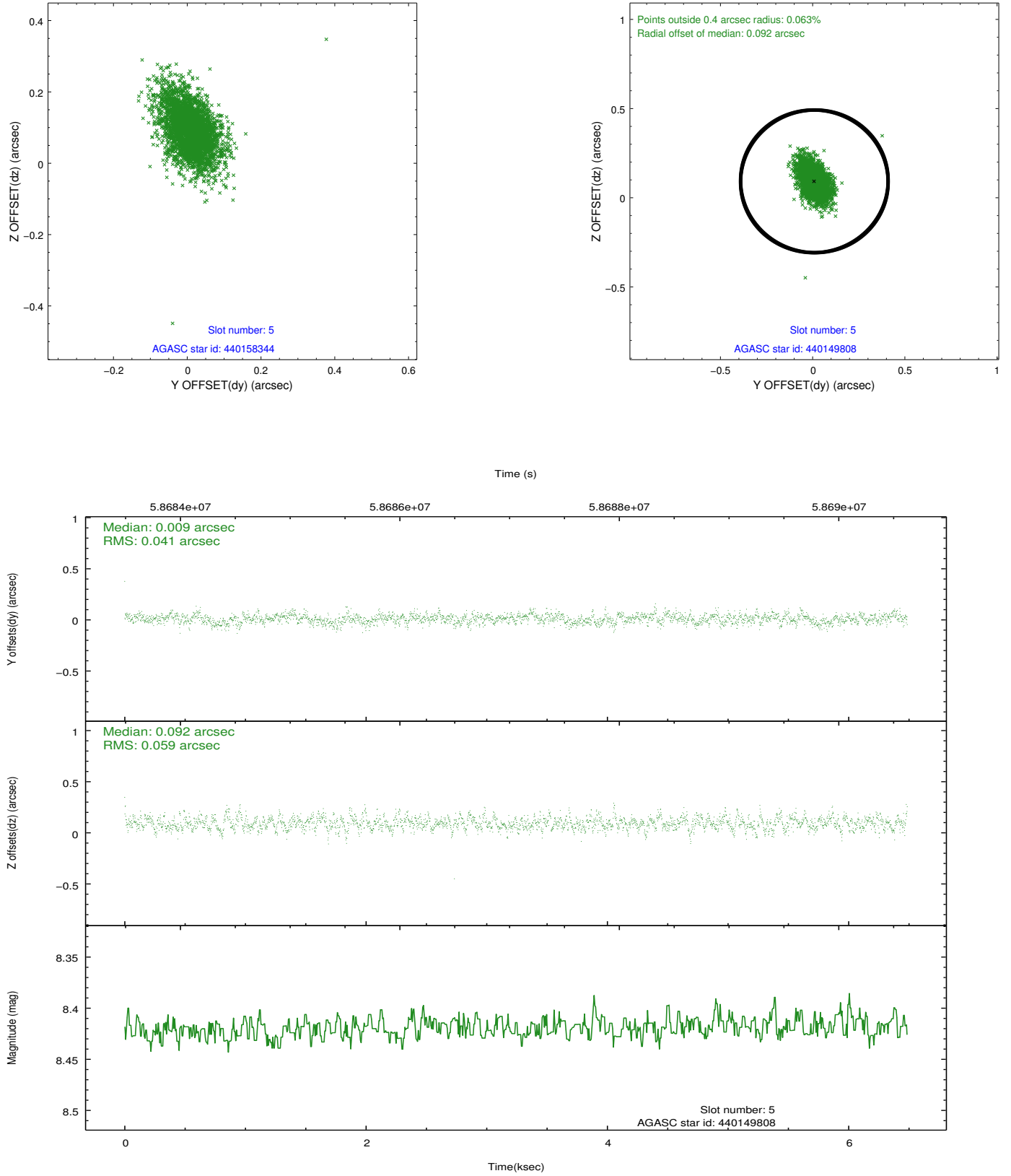
### 2.4.1 Slot 3



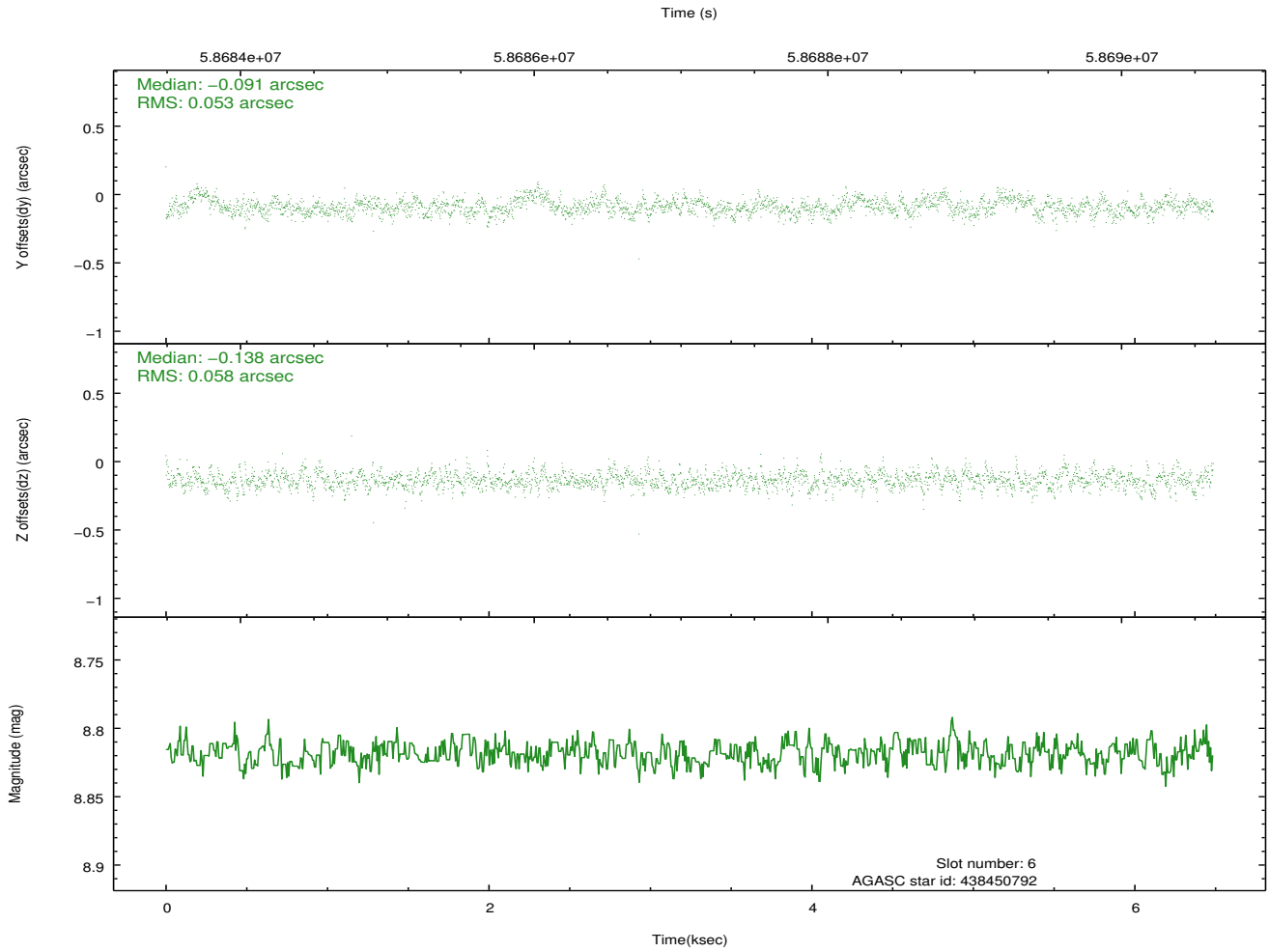
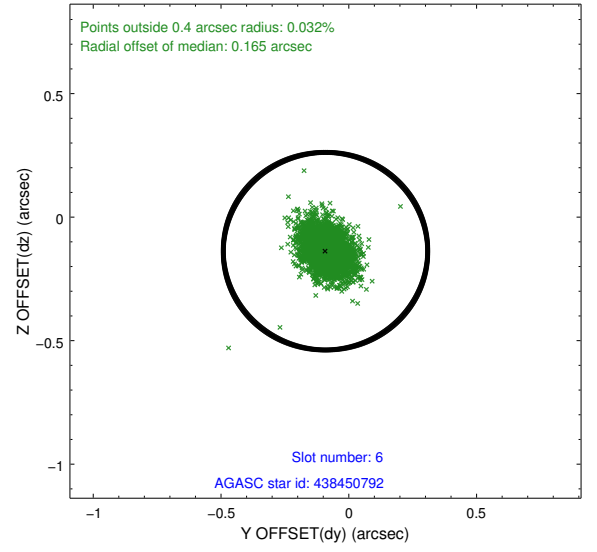
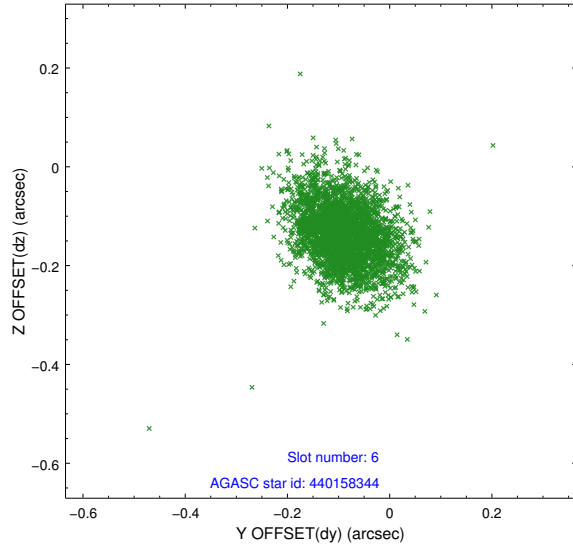
## 2.4.2 Slot 4



### 2.4.3 Slot 5

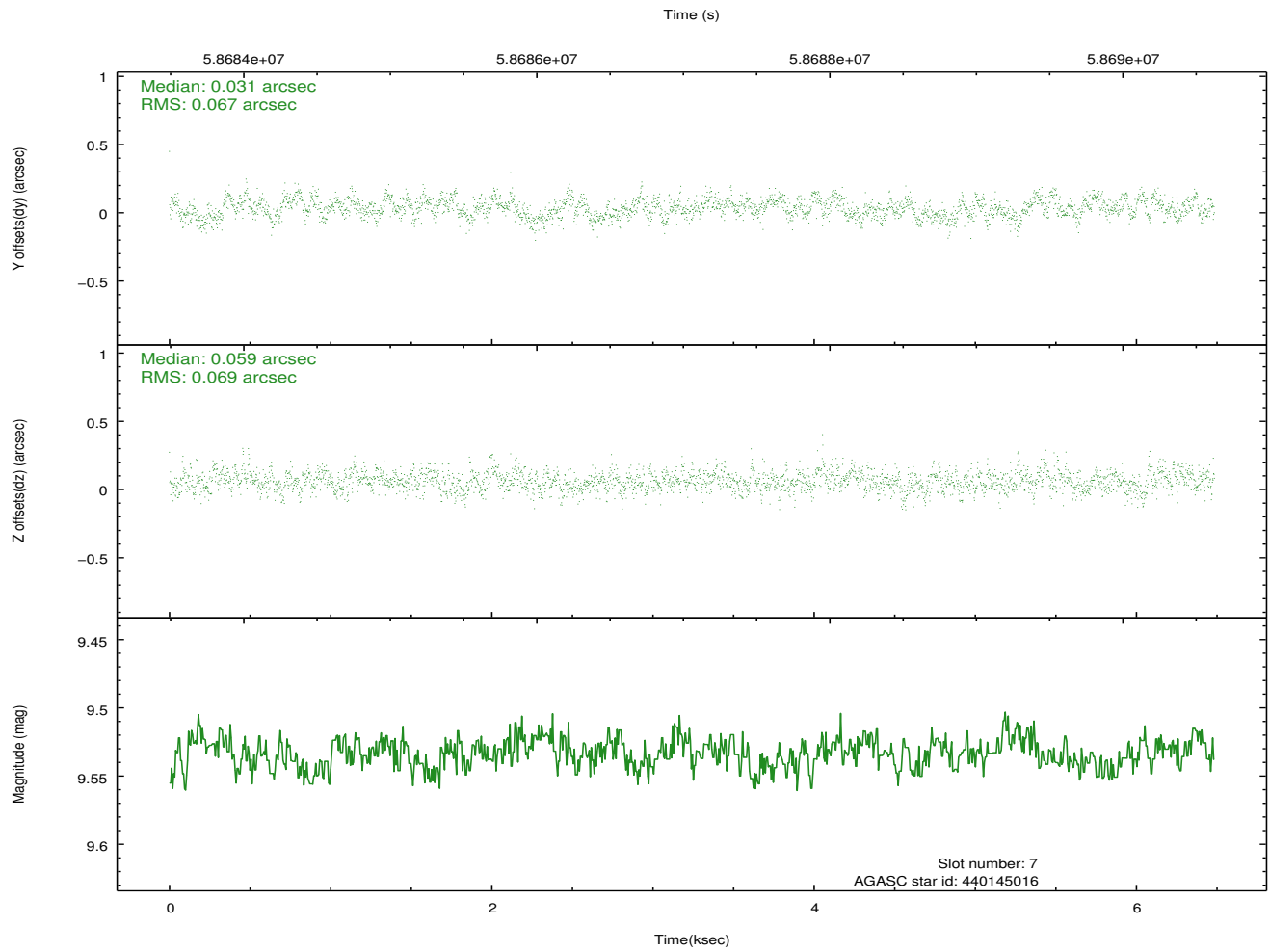
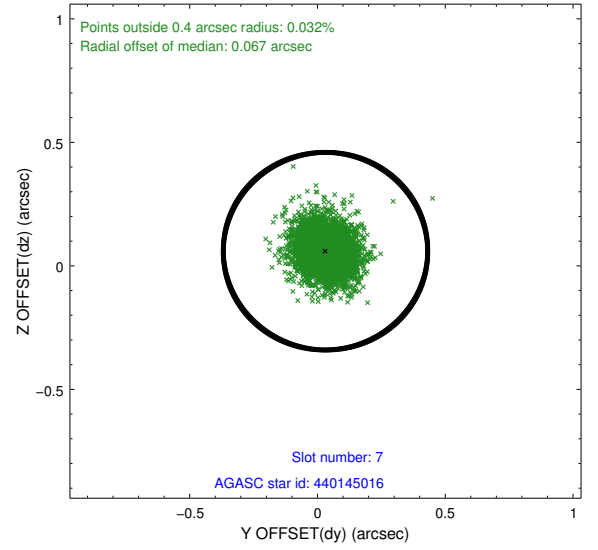
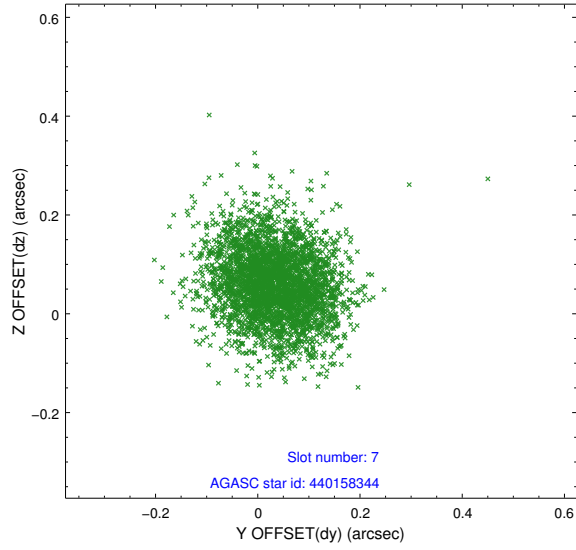


## 2.4.4 Slot 6



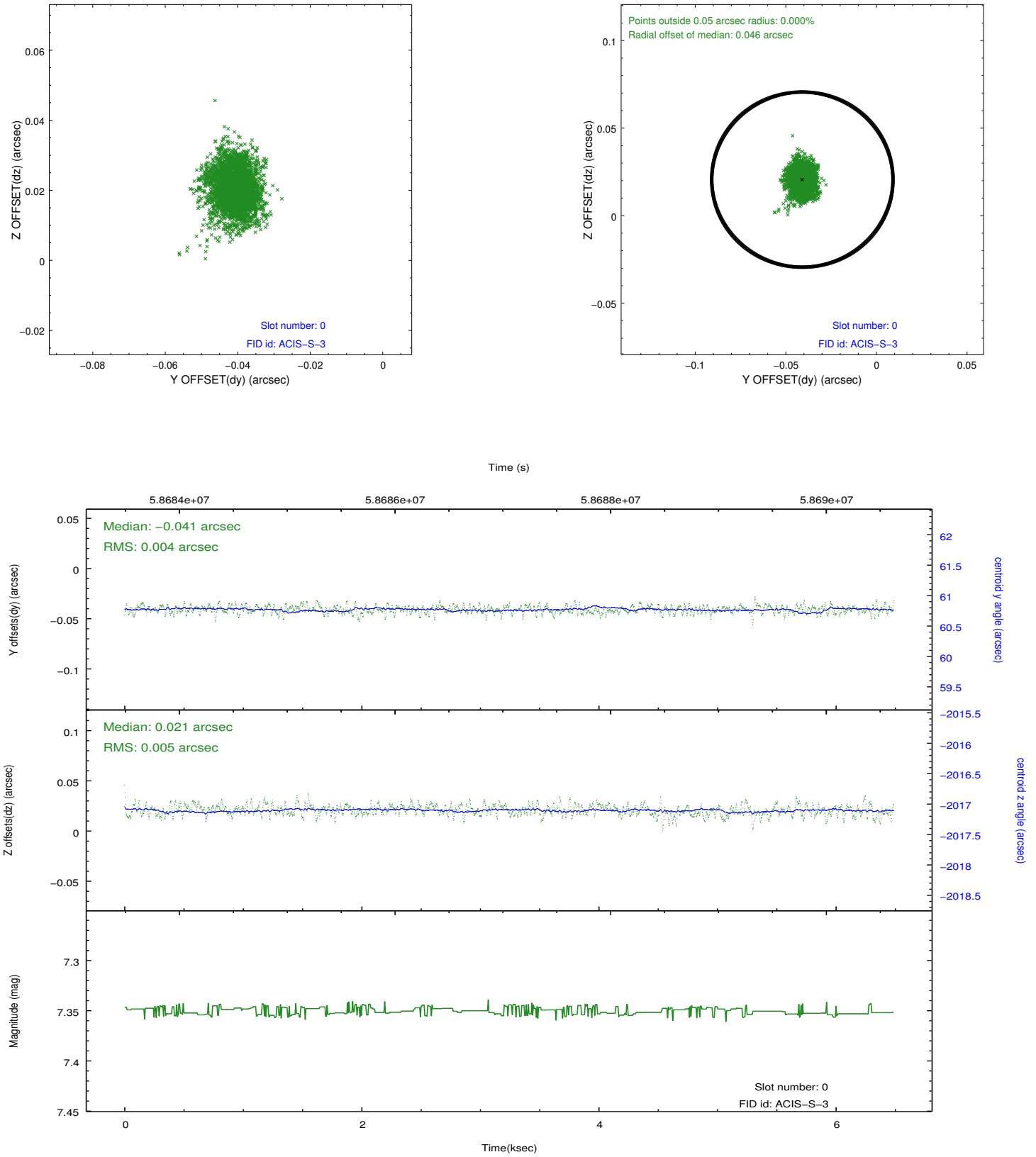


## 2.4.5 Slot 7

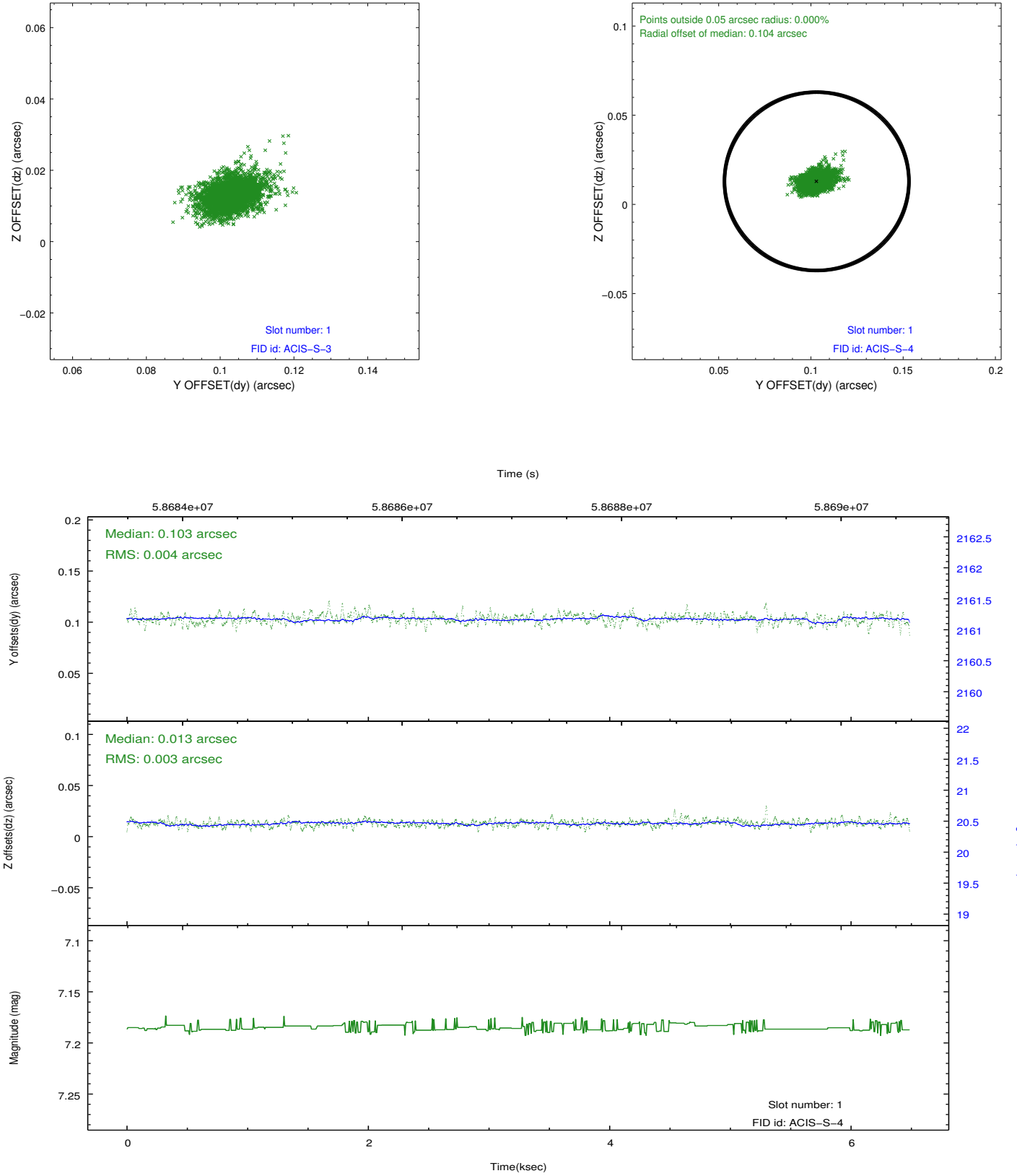


## 2.5 FID Slots

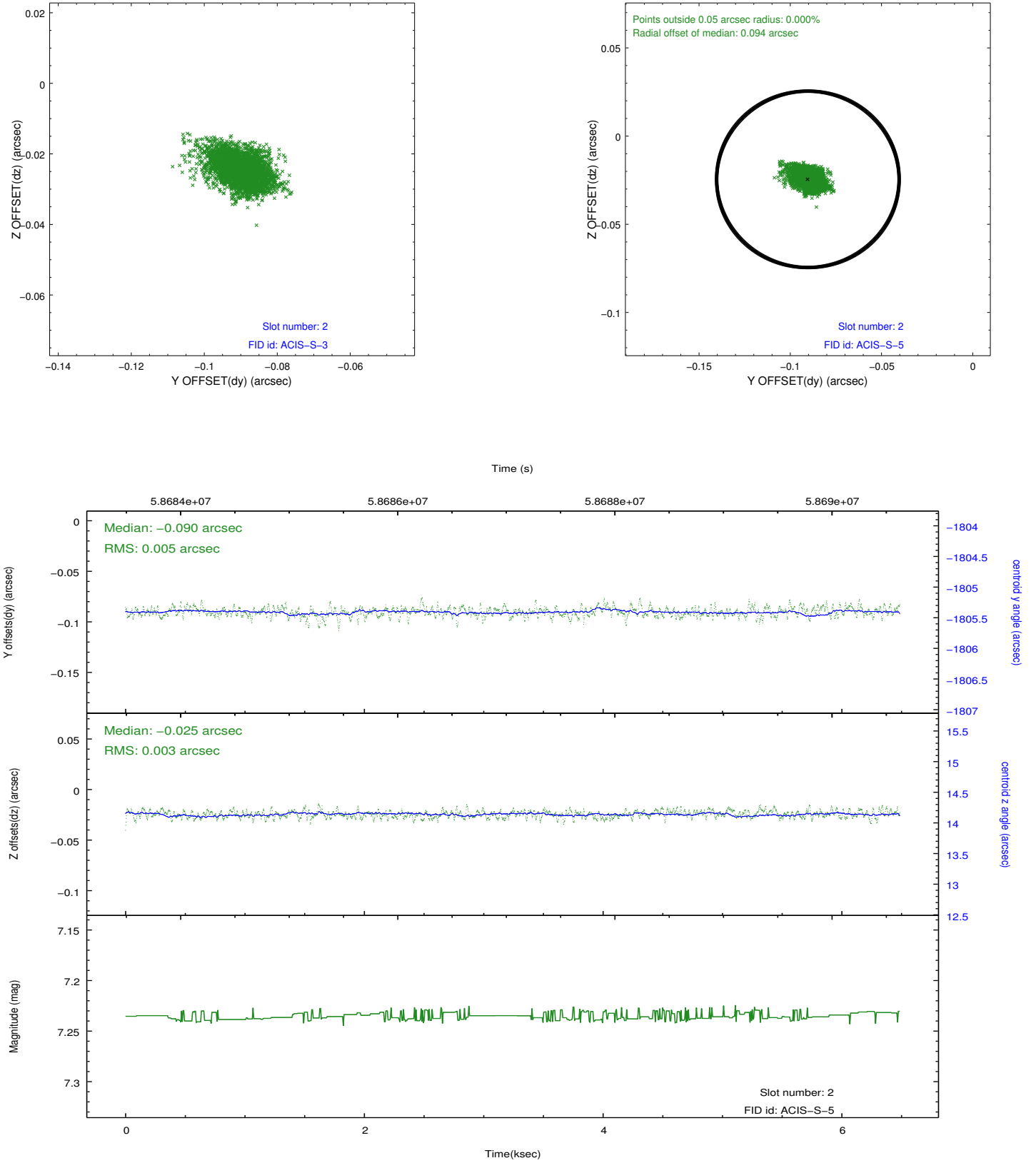
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2

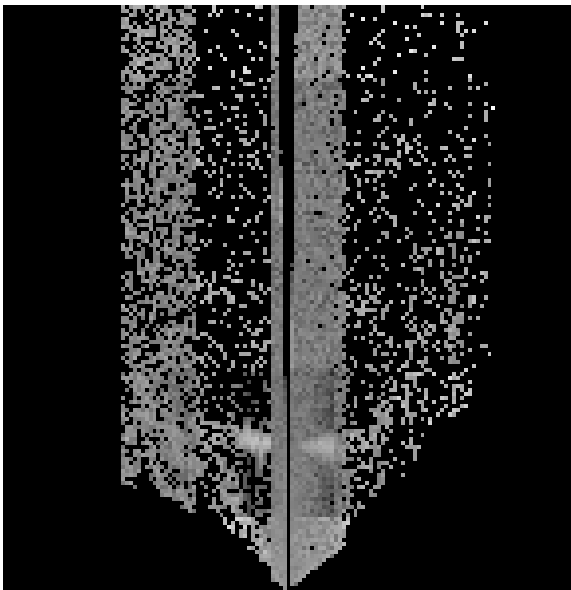


# 3 Gratings

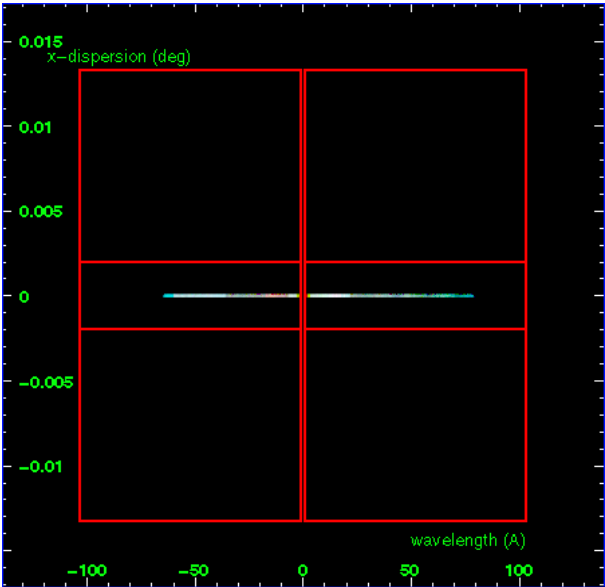
## 3.1 LETG Arm



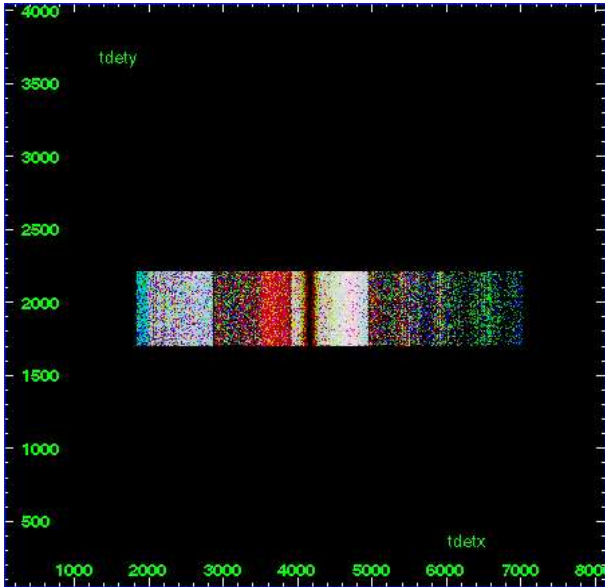
LETG Order Sort 123



LETG Order Sort ALL

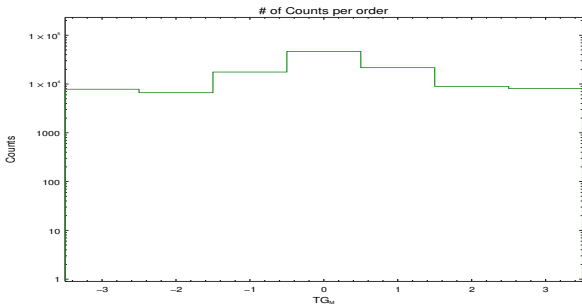


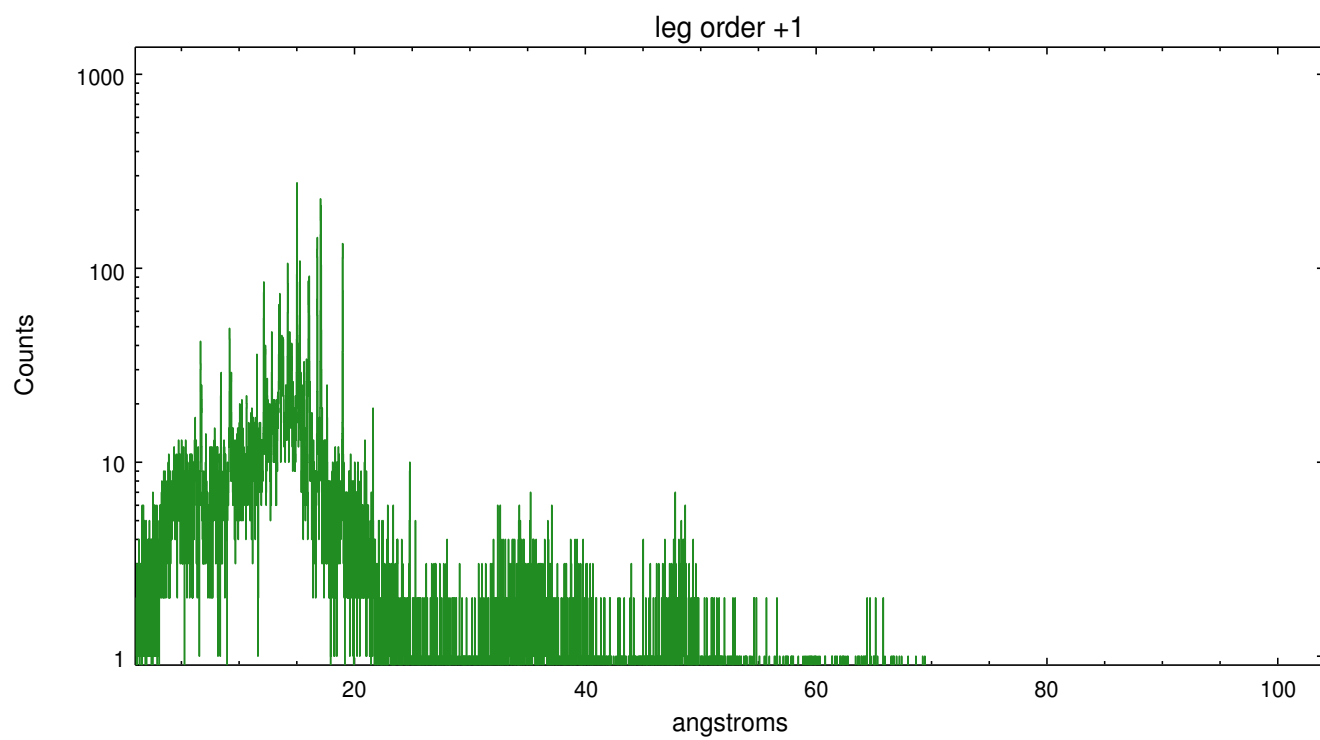
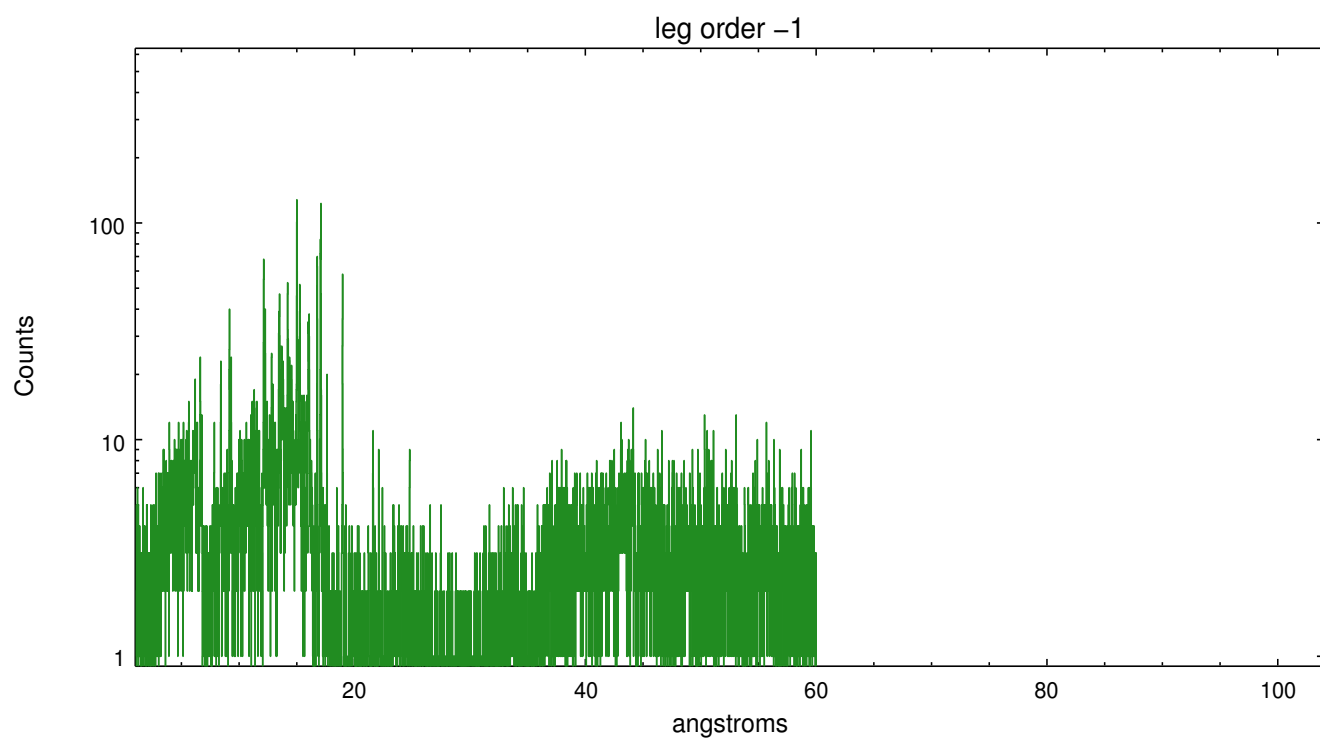
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	7812	6646	17600	46506	21673	8946	8071





## A Summary

### A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2009.11.21
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.178

### A.2 Comments