

# V&V Reference Report

## L2 ASCDS Version : 8.5

Observation 6151 - L2 Version 3  
Chandra X-Ray Center

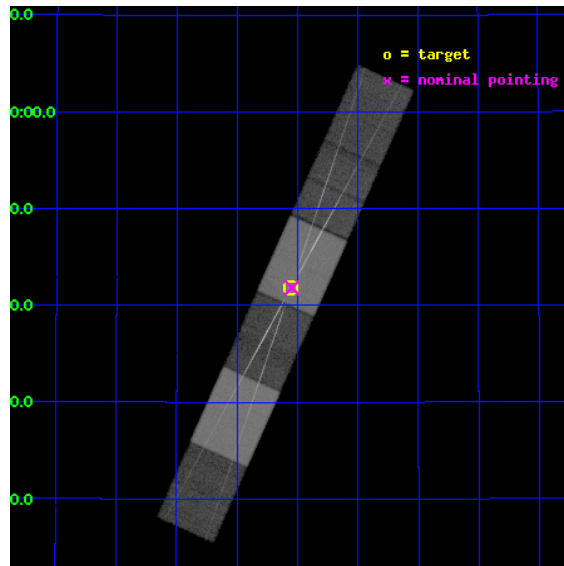
L2 Processing Date : Dec 11 2012

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# 1 Front

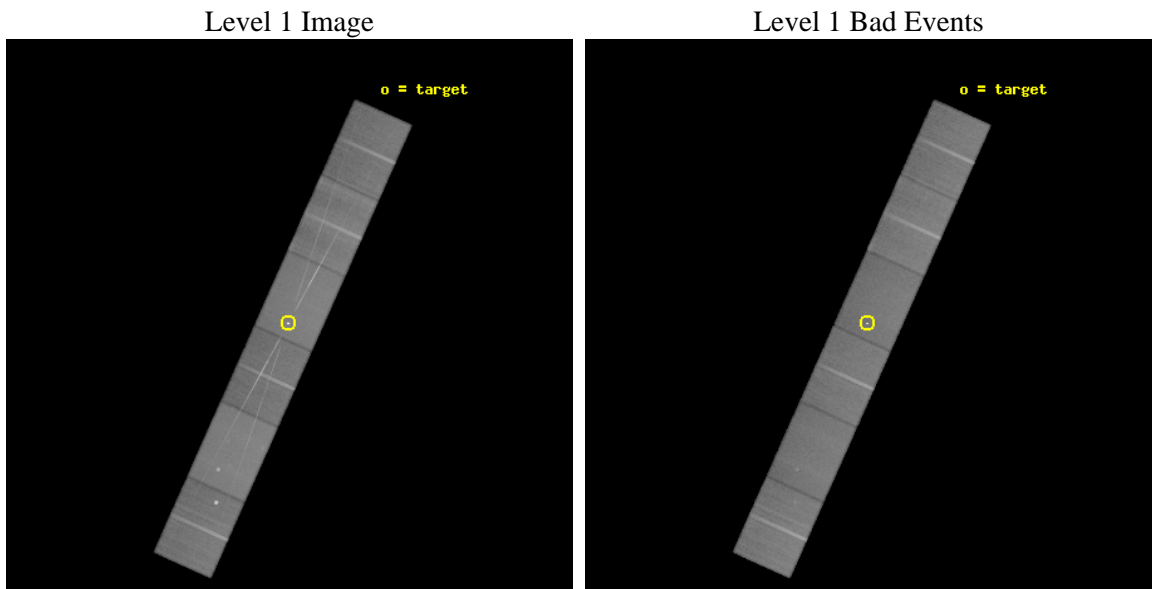
seq_num	700991	Sequence number
obs_id	6151	Observation id
title	The profile of the Fe Kalpha line in the Broad Line Radio Galaxy 3C382	Proposal title
observer	Dr. Rita Sambruna	Principal investigator
object	3C382	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	278.764167	Observer's specified target RA [deg]
dec_targ	32.696389	Observer's specified target Dec [deg]
ra_nom	278.76164946331	Nominal RA [deg]
dec_nom	32.697053852113	Nominal Dec [deg]
roll_nom	294.15799055286	Nominal Roll [deg]
revision	3	Processing version of data
ontime	64920.0	Sum of GTIs [s]
livetime	63871.485690898	Livetime [s]
ontime4	64920.0	Sum of GTIs [s]
ontime5	64920.0	Sum of GTIs [s]
ontime6	64920.0	Sum of GTIs [s]
ontime7	64920.0	Sum of GTIs [s]
ontime8	64920.0	Sum of GTIs [s]
ontime9	64917.458999842	Sum of GTIs [s]
l2events	756989	Number of level 2 events



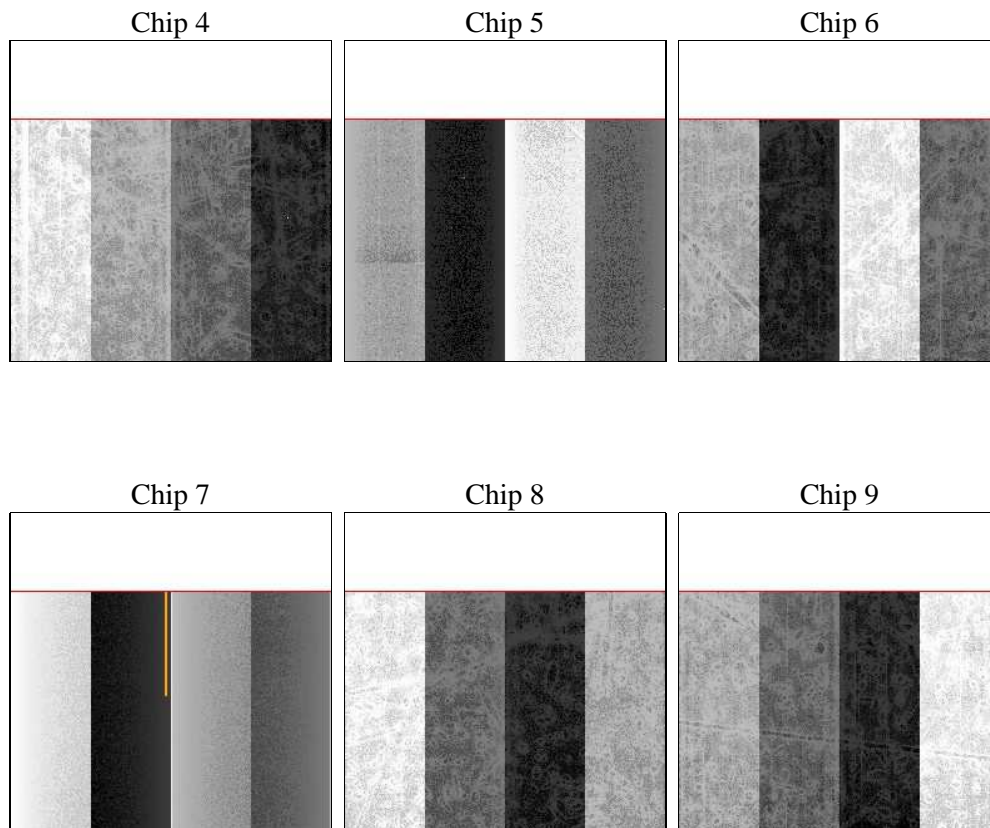
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	65000.000000	[s] Scheduled observation exposure time
ascdsver	8.5	Processing system revision	ontime	64920.0	Sum of GTIs [s]
caldbver	4.5.4	&#160	ontime4	64920.0	Sum of GTIs [s]
date	2012-12-11T01:51:24	Date and time of file creation	ontime5	64920.0	Sum of GTIs [s]
revision	3	Processing version of data	ontime6	64920.0	Sum of GTIs [s]
			ontime7	64920.0	Sum of GTIs [s]
			ontime8	64920.0	Sum of GTIs [s]
			ontime9	64917.458999842	Sum of GTIs [s]
			l1events	2986938	Number of level 1 events

### 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	453821	583785	439086	586882	524884	398480	grade 0 events	37514	24752	44868	30329	49163	23330
rejected events	386355	312252	357316	313772	393386	344738		8%	4%	10%	5%	9%	5%
rejected %	85%	53%	81%	53%	74%	86%	grade 1 events	441	681	297	1027	376	219
								0%	0%	0%	0%	0%	0%
							grade 2 events	11235	80546	13811	56555	26105	10049
								2%	13%	3%	9%	4%	2%
							grade 3 events	5197	13220	6031	25467	13471	5295
								1%	2%	1%	4%	2%	1%
							grade 4 events	5259	12579	6099	25210	12448	5232
								1%	2%	1%	4%	2%	1%
							grade 5 events	16673	43626	17383	53317	22758	18491
								3%	7%	3%	9%	4%	4%
							grade 6 events	8266	140452	10964	135577	30321	9844
								1%	24%	2%	23%	5%	2%
							grade 7 events	369236	267929	339633	259400	370242	326020
								81%	45%	77%	44%	70%	81%

## 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	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	278.735154	278.7616494633139	Subarray requested	CUSTOM	CUSTOM
[deg] Pointing Dec	32.712702	32.69705385211292	Subarray start row	1	1
[deg] Pointing Roll	294.015678	294.1579905528571	Subarray row count	774	774
[deg] Roll angle	268.000000	268.000000	Alternating exposures requested	N	N
[deg] Roll tolerance	33.000000	33.000000	[s] Primary exposure time	0.000000	2.5
Roll constraint allows 180D rotation	Y	Y			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-187.132523	-187.1228876879999			
[mm] SIM translation stage offset	-3	-3.009634895007935			
[s] Observation start time (MET)	215508063.184000	215507120.84352			
Observation start date	2004-10-30T07:19:59	2004-10-30T07:05:20			
[s] Observation end time (MET)	215573063.184000	215573877.04651			
Observation end date	2004-10-31T01:23:19	2004-10-31T01:37:57			
Read mode	TIMED	TIMED			

## 2.3 Aspect



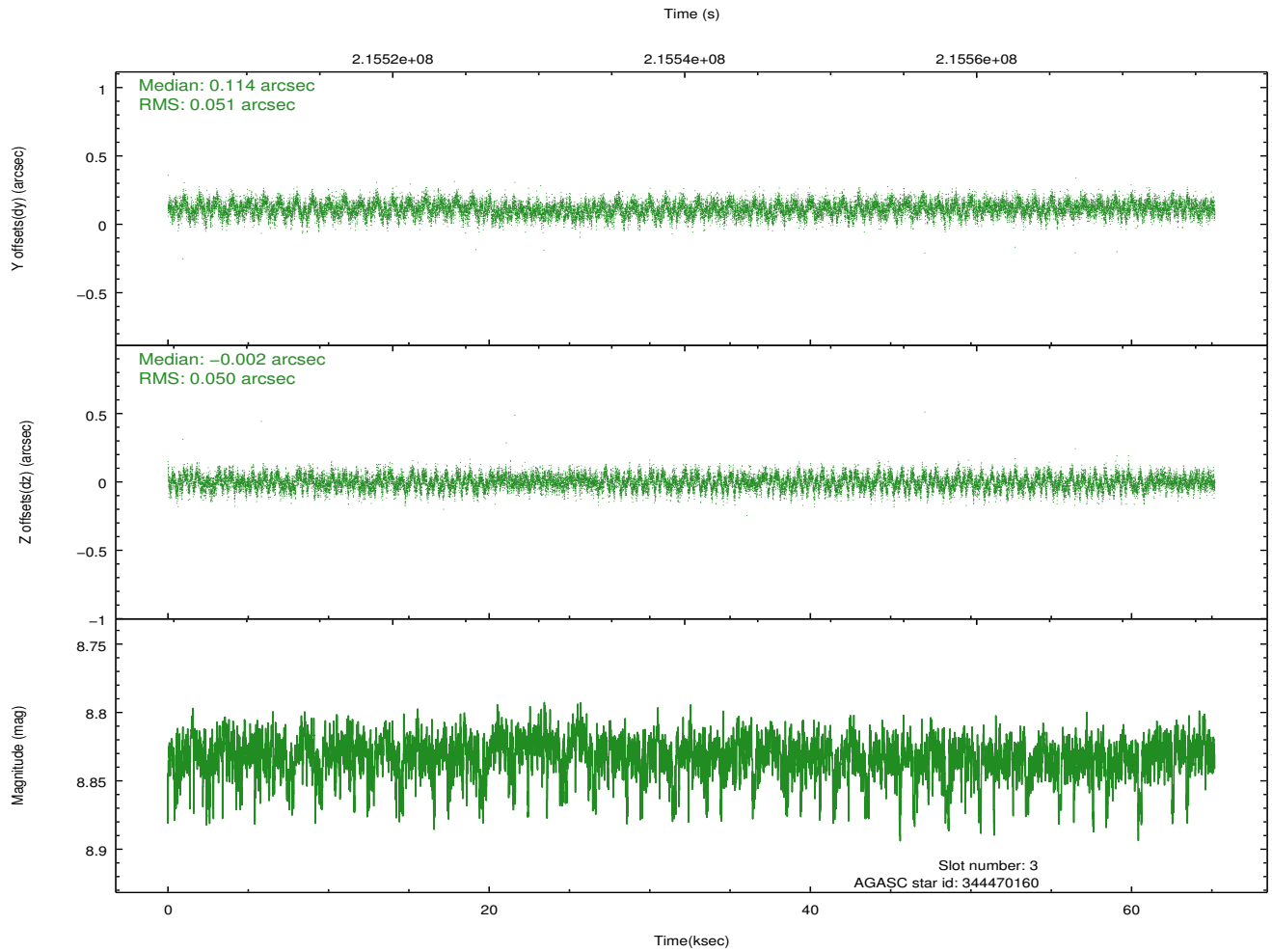
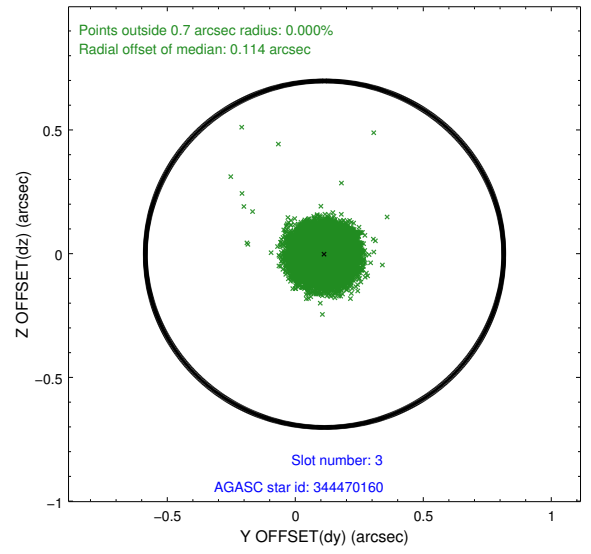
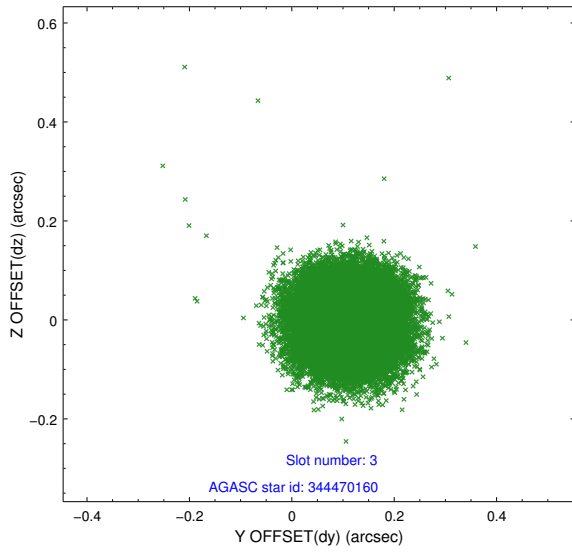
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.18	15899	0.029	0.038	0.019	0.056	0.000000	0.000000	936.71	-1790.36
1	FID	ACIS-S-5	7.23	15899	-0.088	0.031	0.015	0.029	0.000000	0.000000	-1812.43	107.25
2	FID	ACIS-S-6	7.37	15898	0.039	-0.059	0.015	0.047	0.000000	0.000000	402.34	751.05
3	GUIDE	344470160	8.83	31774	0.114	-0.002	0.077	0.121	278.797364	32.225309	1680.37	-540.64
4	GUIDE	344472272	9.95	31761	0.040	-0.046	0.107	0.178	278.328477	32.179157	1248.73	-1912.37
5	GUIDE	346161984	9.35	31772	-0.100	-0.038	0.093	0.152	279.085504	33.499118	-2159.47	2113.69
6	GUIDE	346176856	9.20	31777	0.071	-0.014	0.074	0.120	279.094962	32.258255	1938.90	335.97
7	GUIDE	344464904	8.43	31782	-0.128	0.100	0.058	0.095	278.255510	33.238188	-2318.38	-547.85

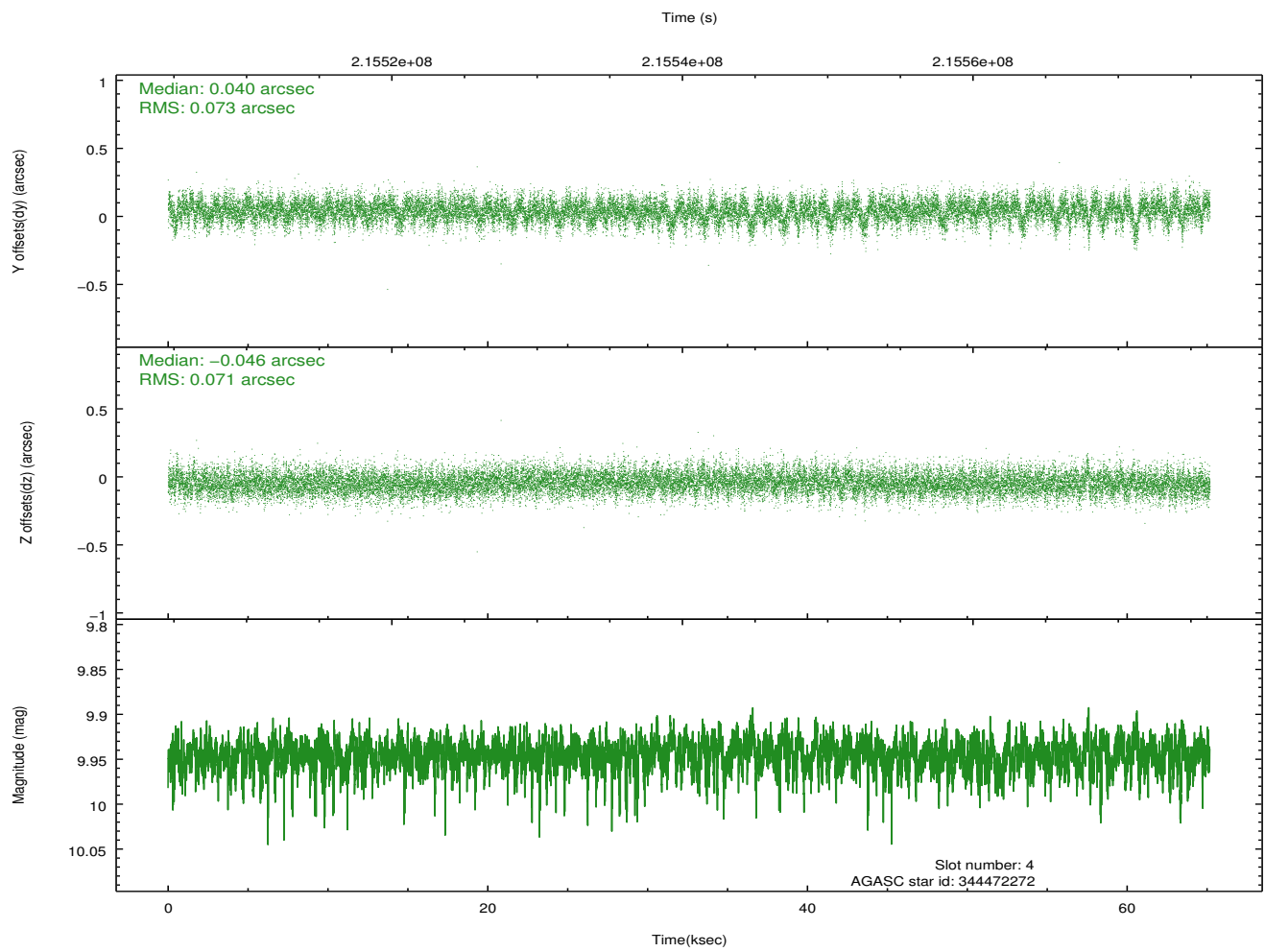
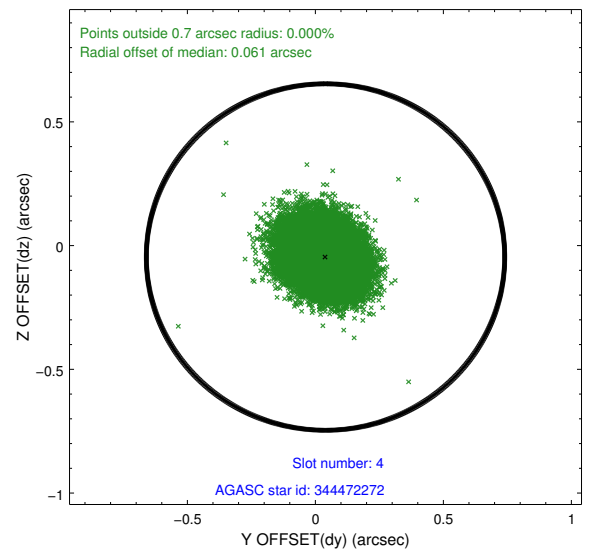
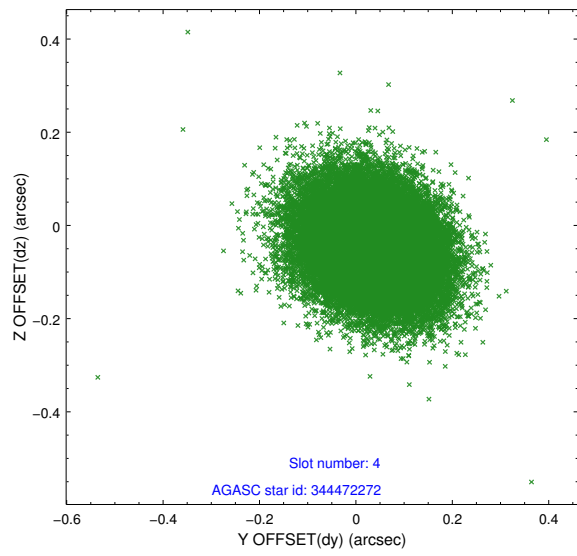
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## 2.4 Star Slots

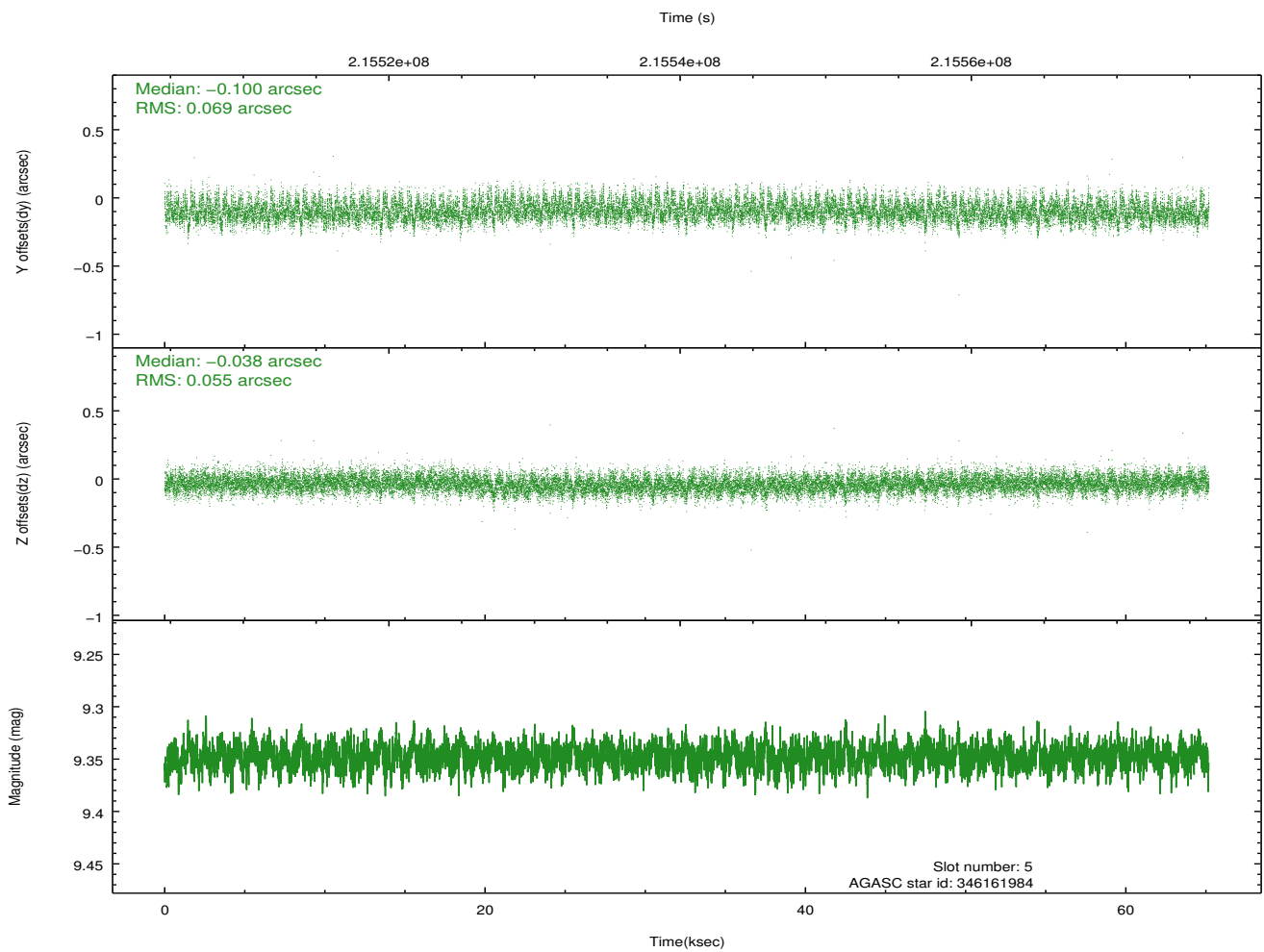
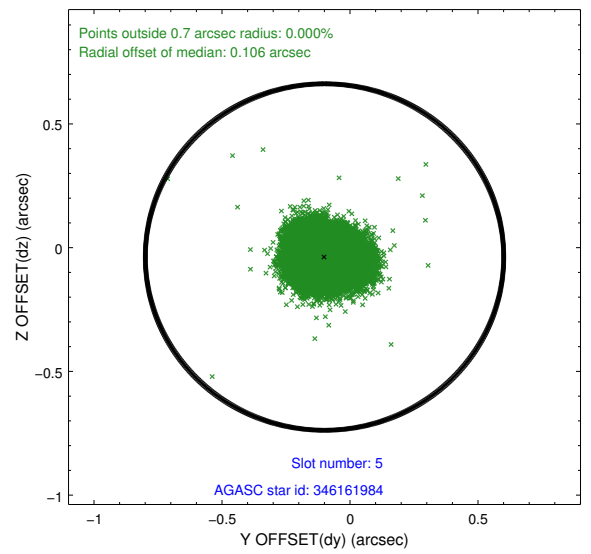
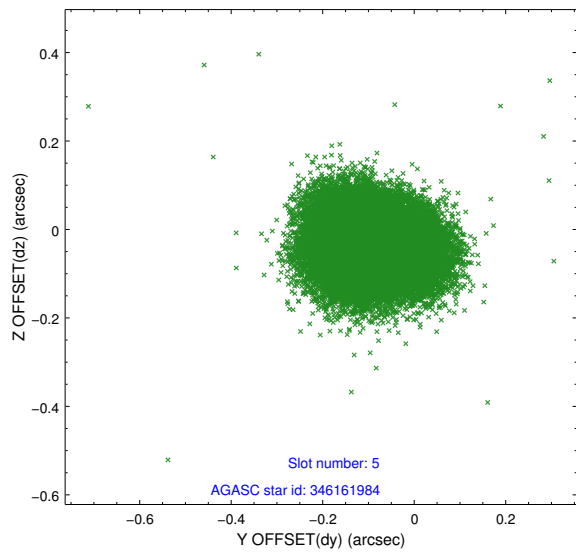
### 2.4.1 Slot 3



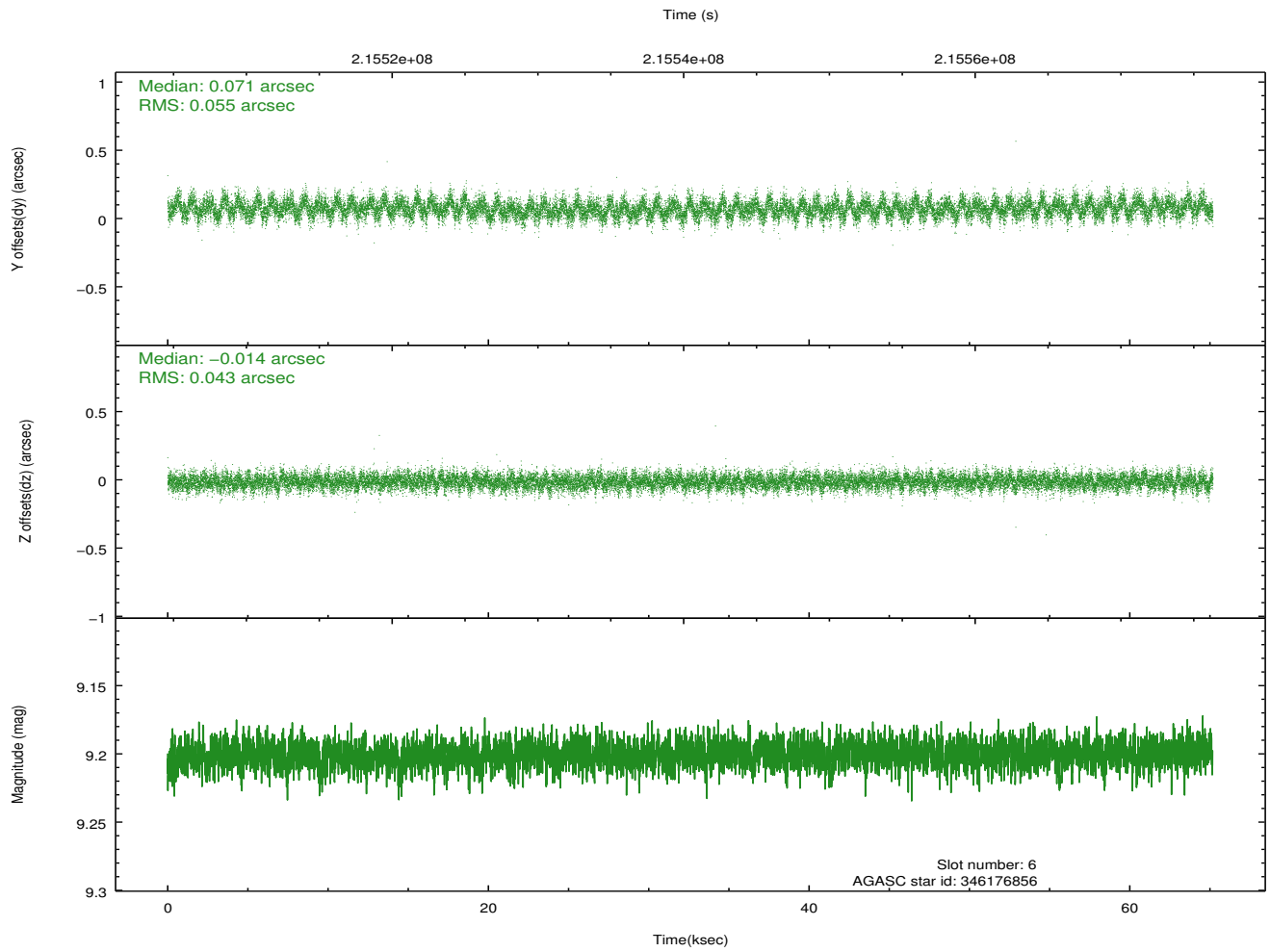
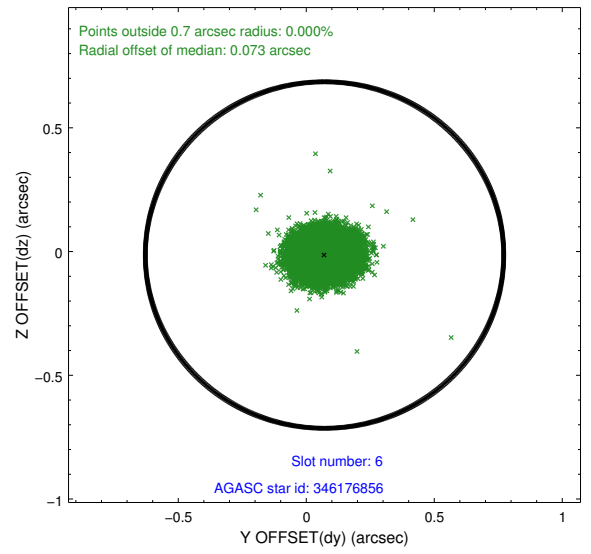
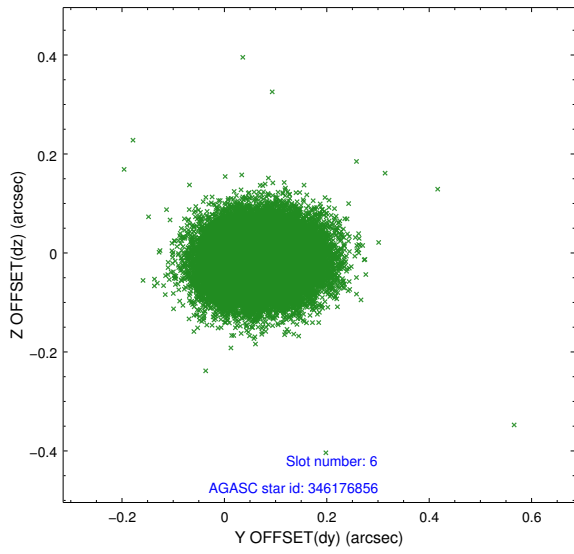
## 2.4.2 Slot 4



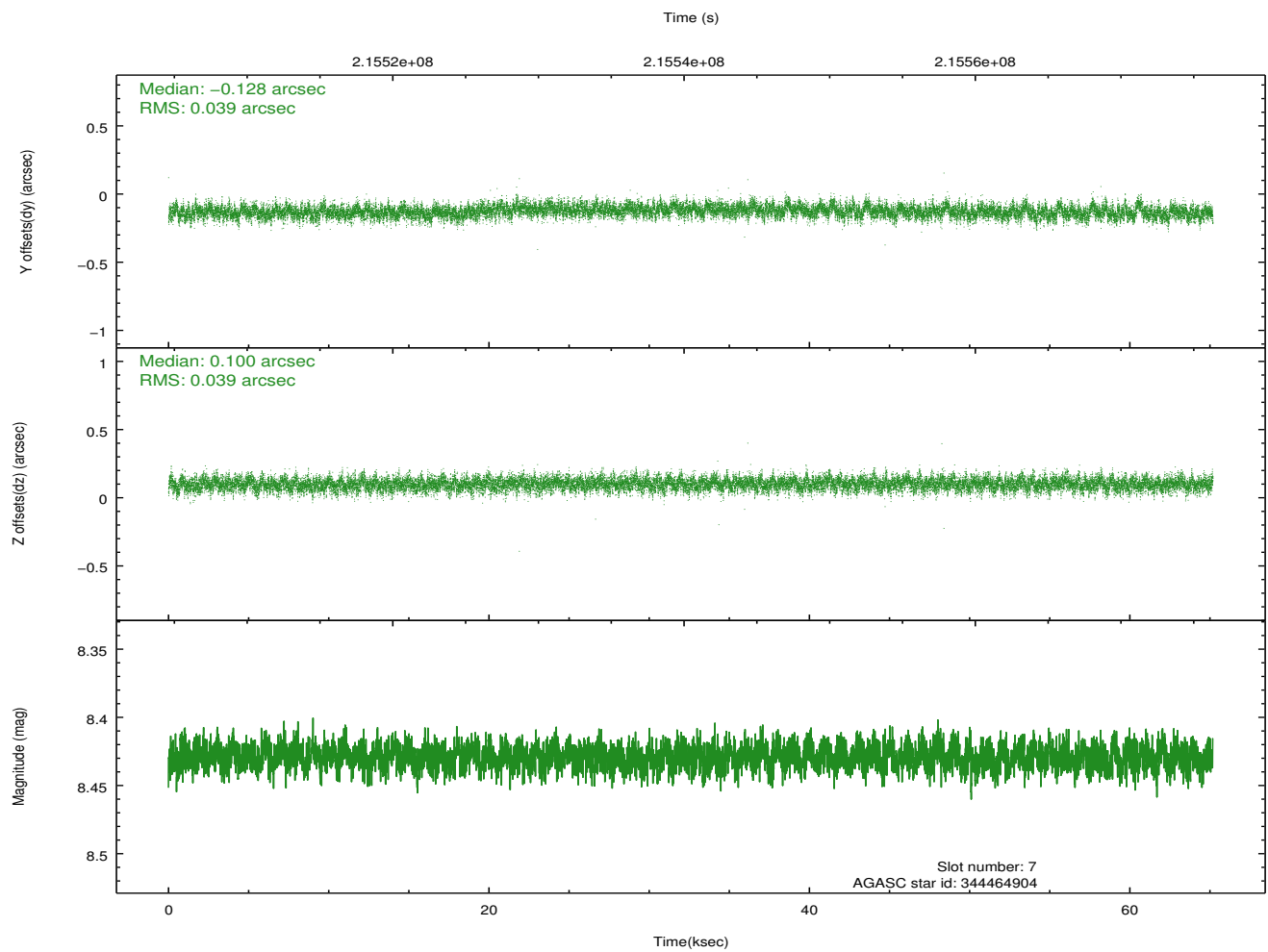
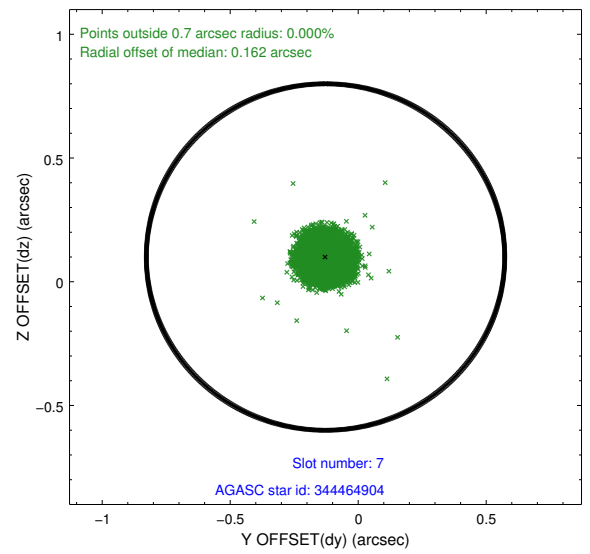
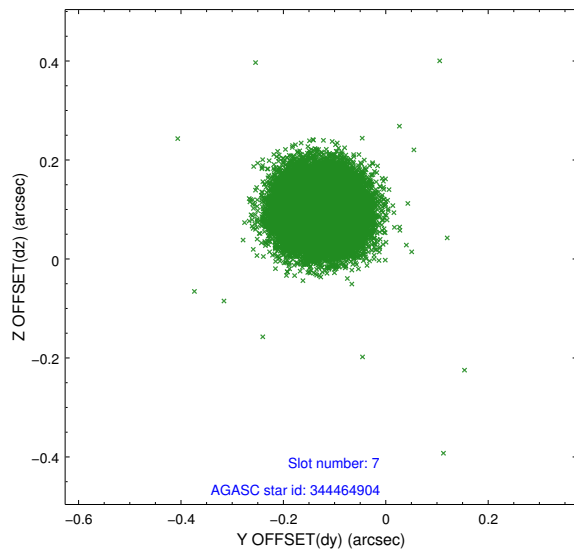
### 2.4.3 Slot 5



### 2.4.4 Slot 6

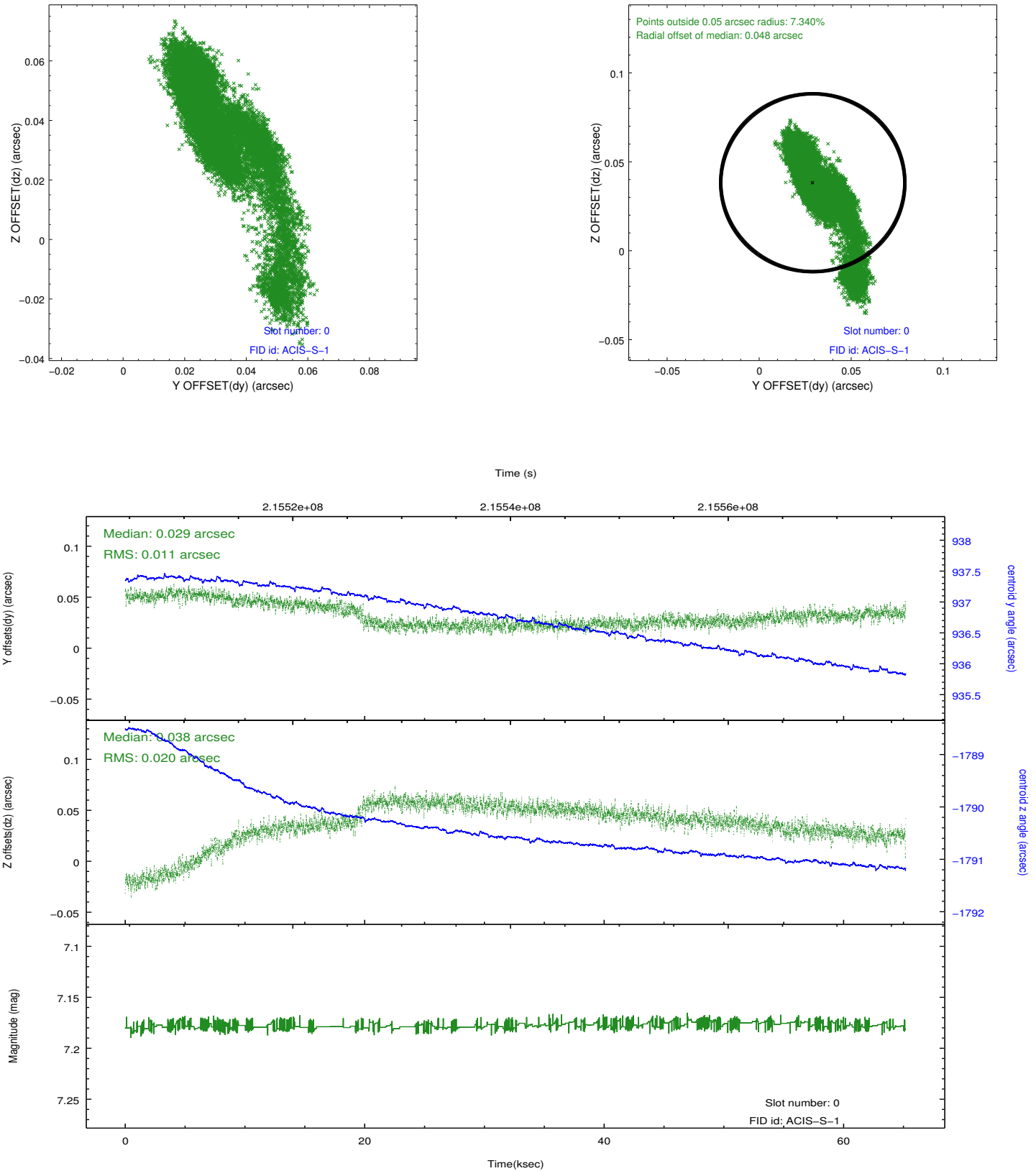


## 2.4.5 Slot 7

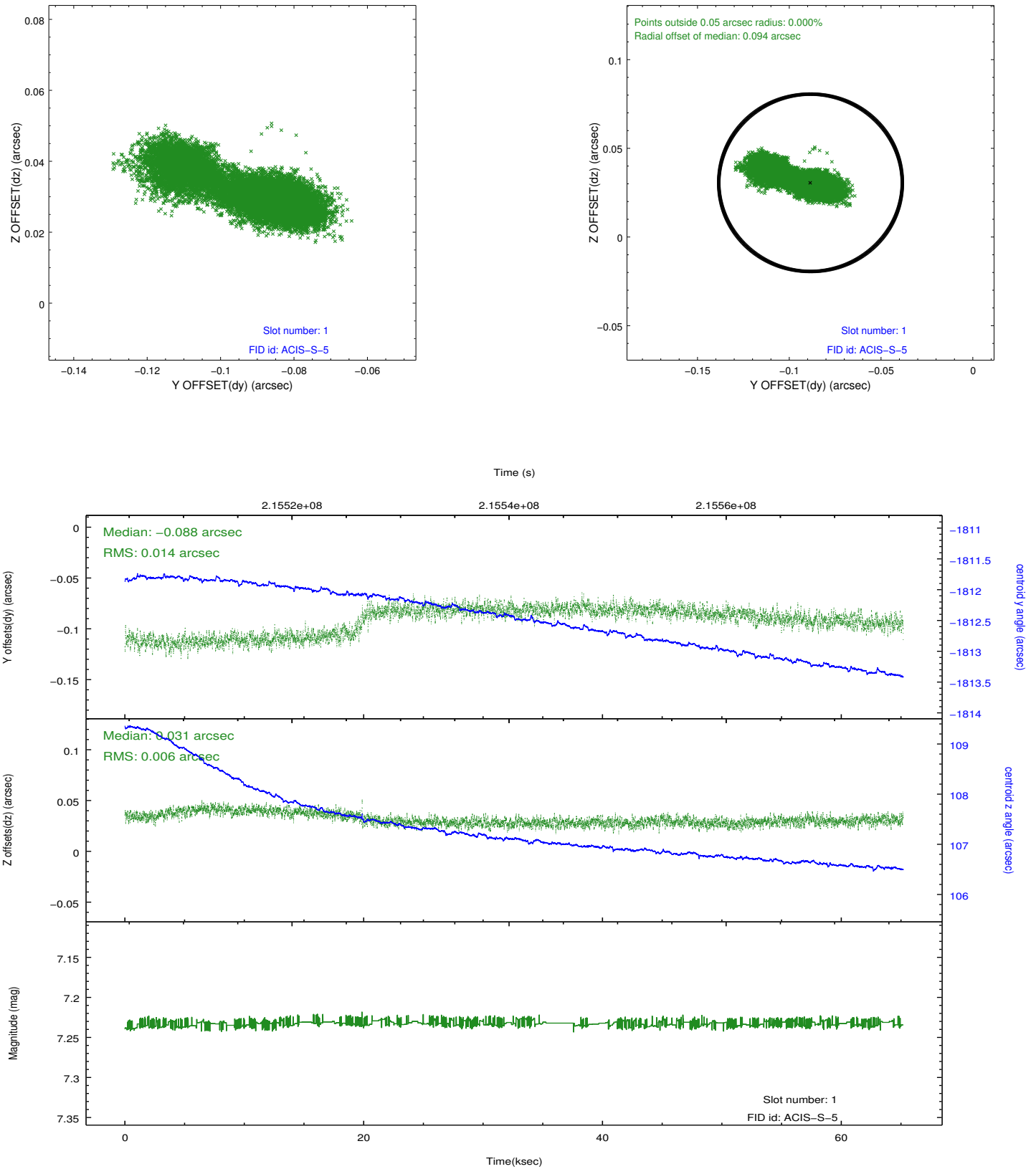


## 2.5 FID Slots

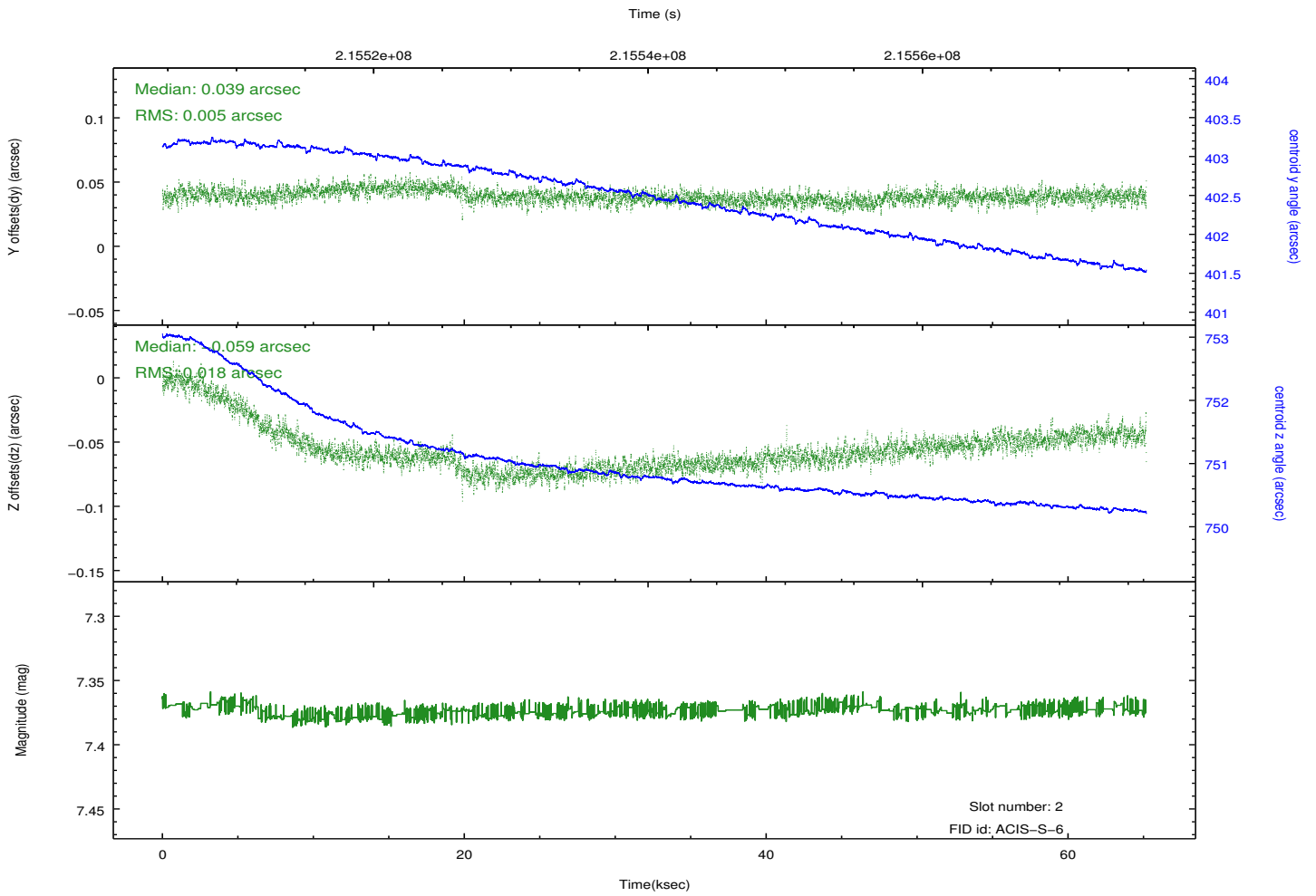
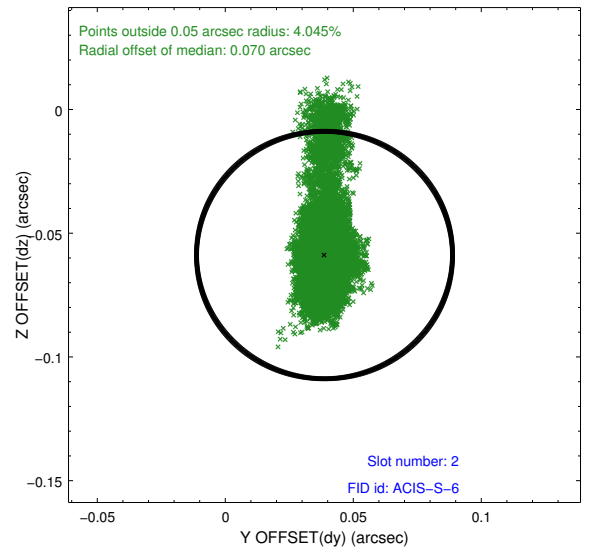
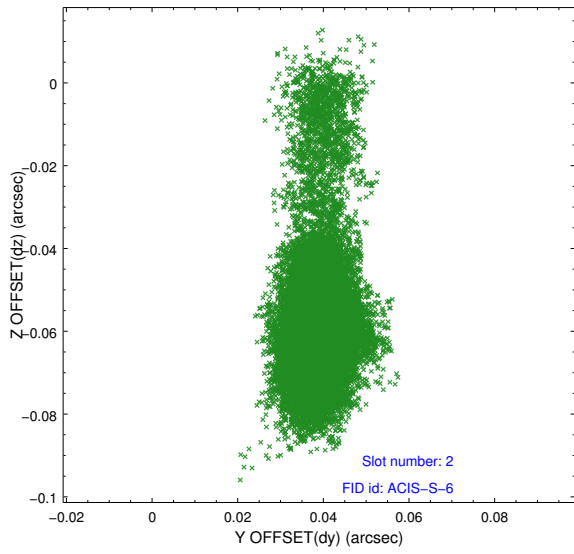
### 2.5.1 Slot 0



## 2.5.2 Slot 1

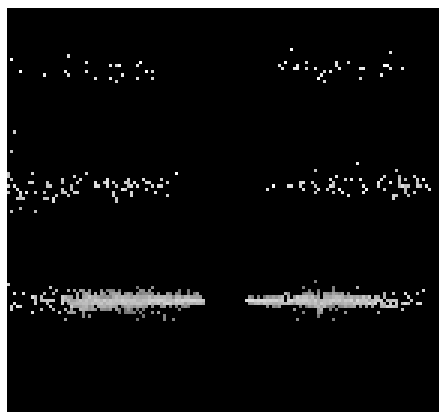


### 2.5.3 Slot 2

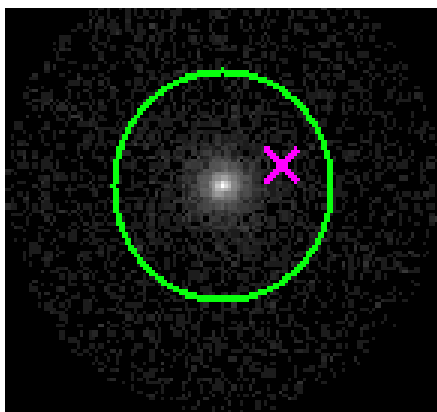


### 3 Gratings

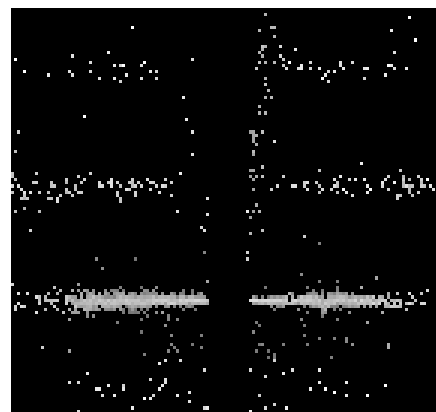
#### 3.1 HEG Arm



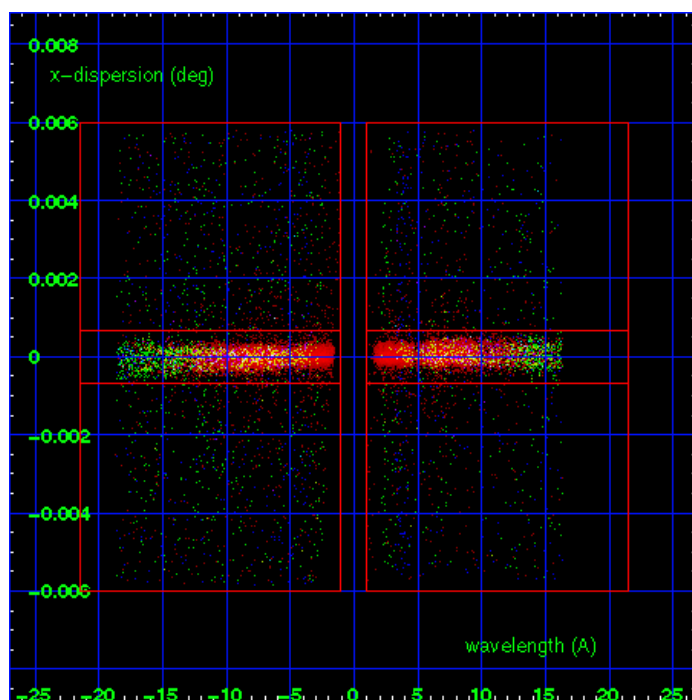
HEG Order Sort 123



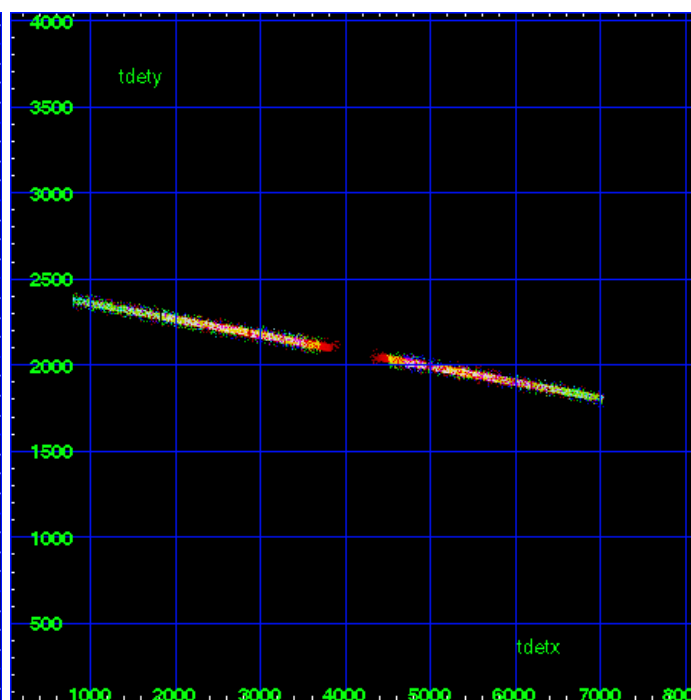
HEG Zero Order



HEG Order Sort ALL

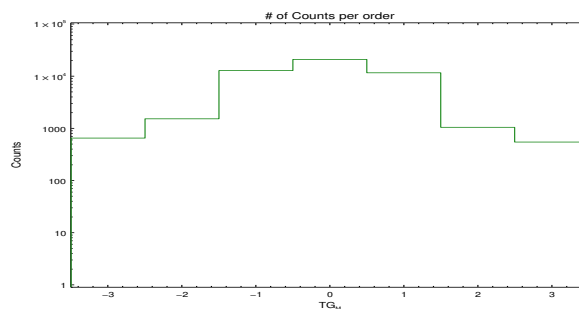


Spot Image HEG

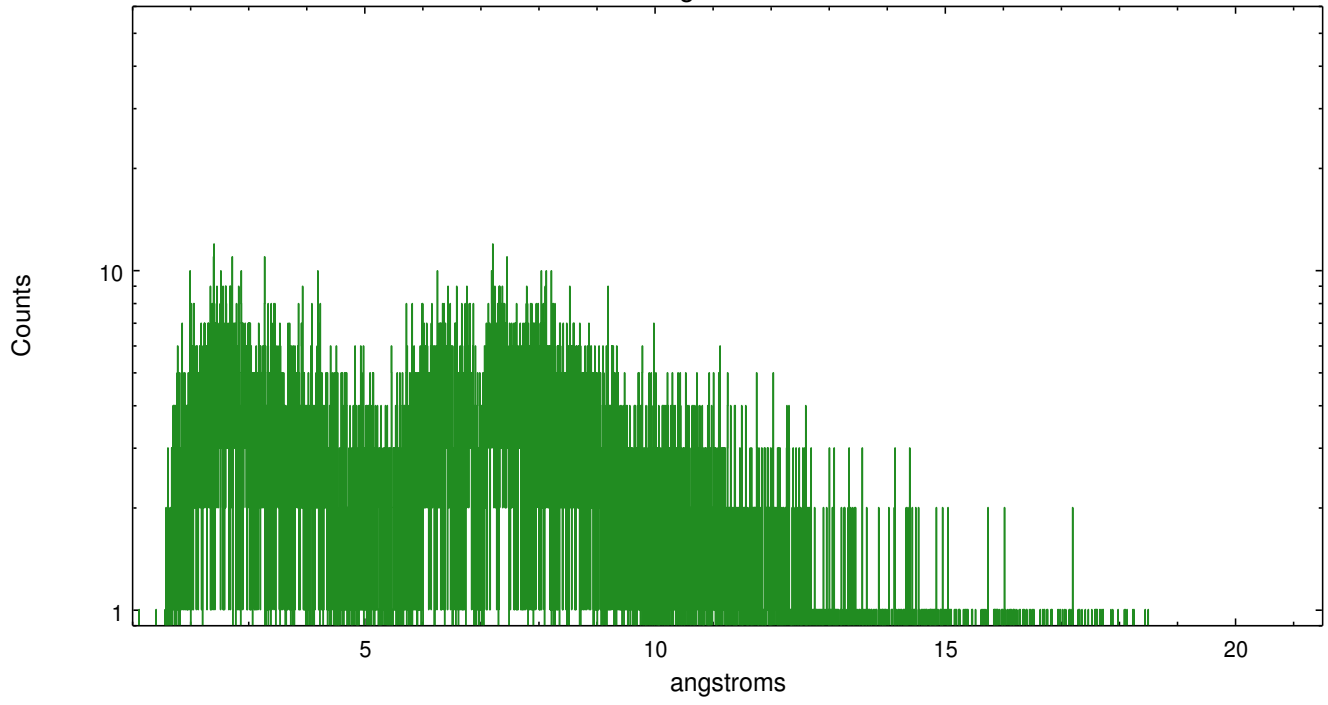


Full Detector HEG

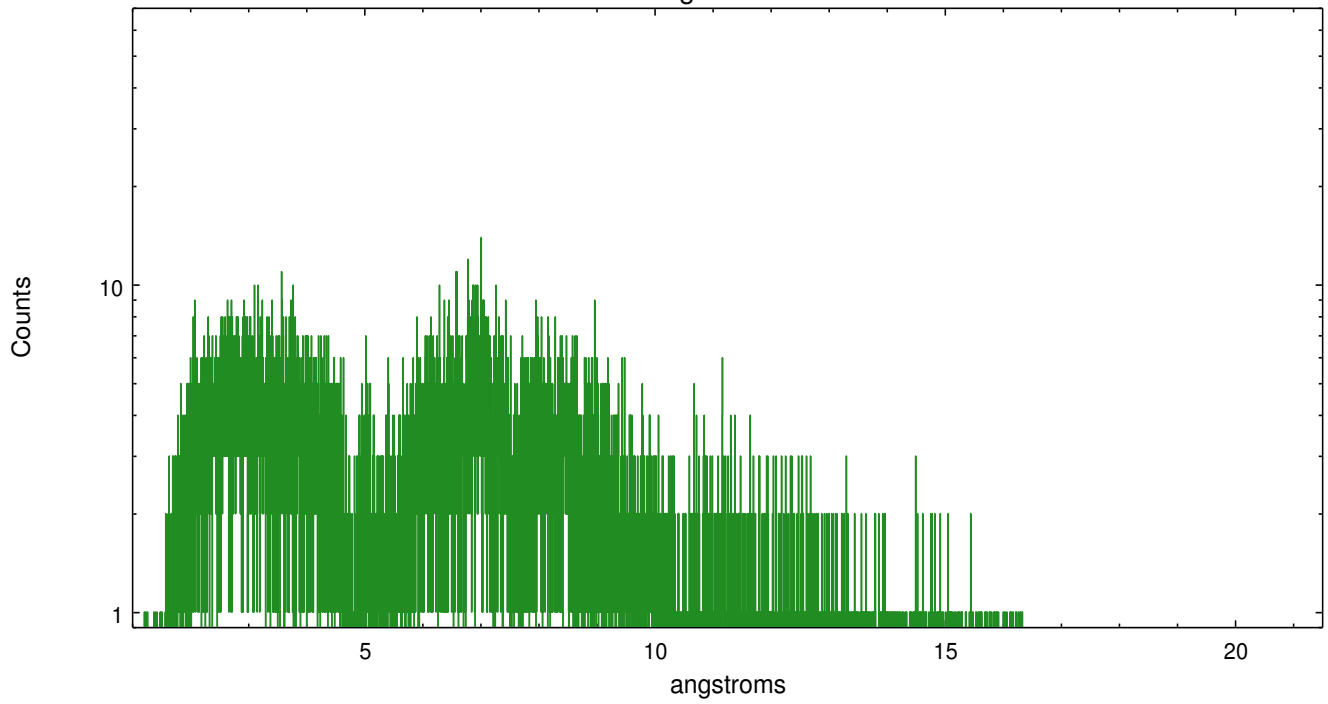
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	652	1530	12899	21094	11698	1049	547



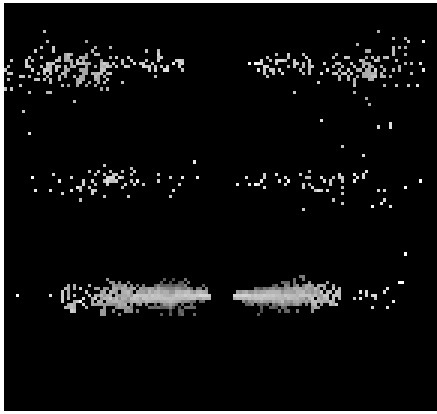
heg order -1



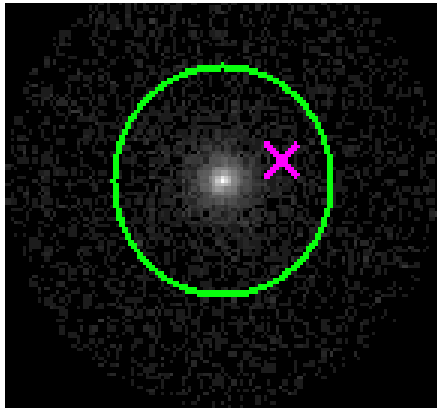
heg order +1



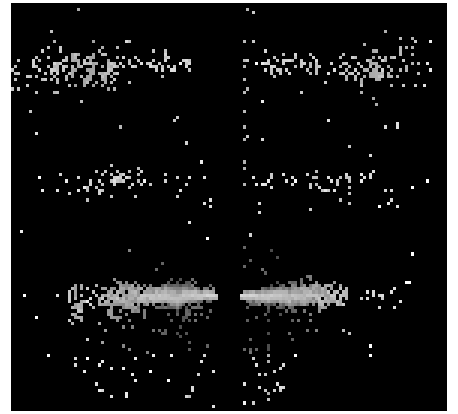
### 3.2 MEG Arm



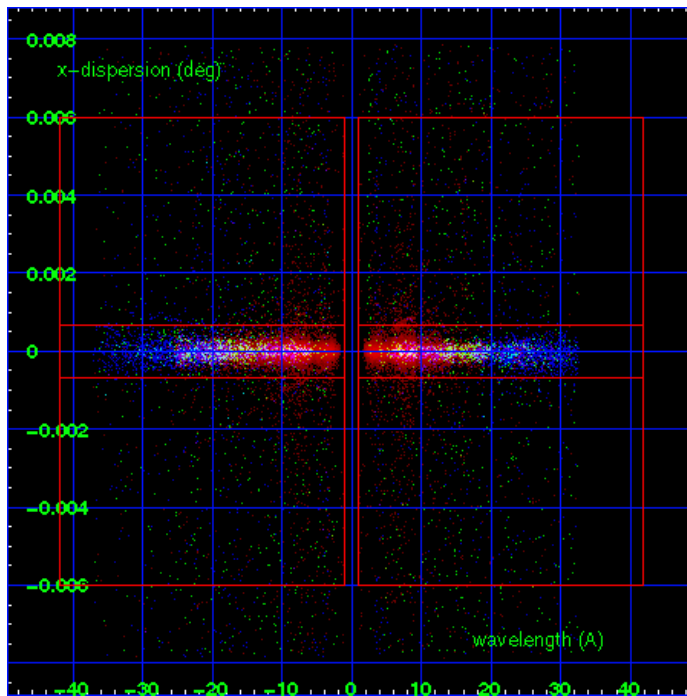
MEG Order Sort 123



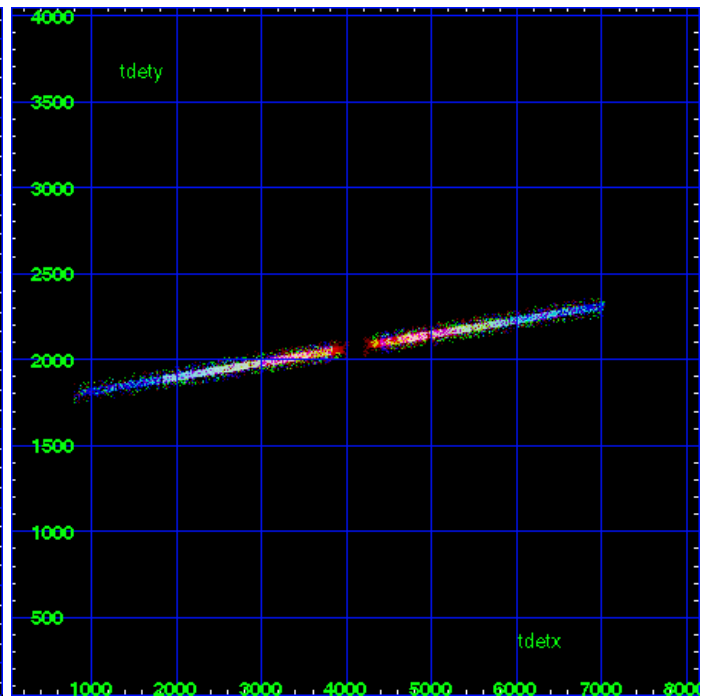
MEG Zero Order



MEG Order Sort ALL

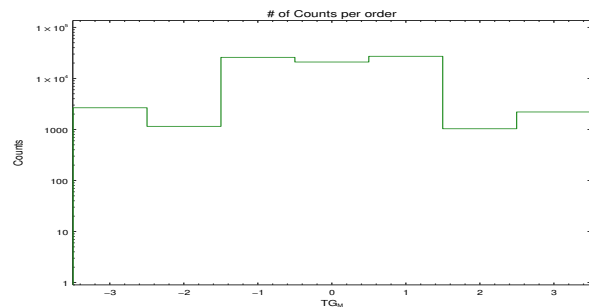


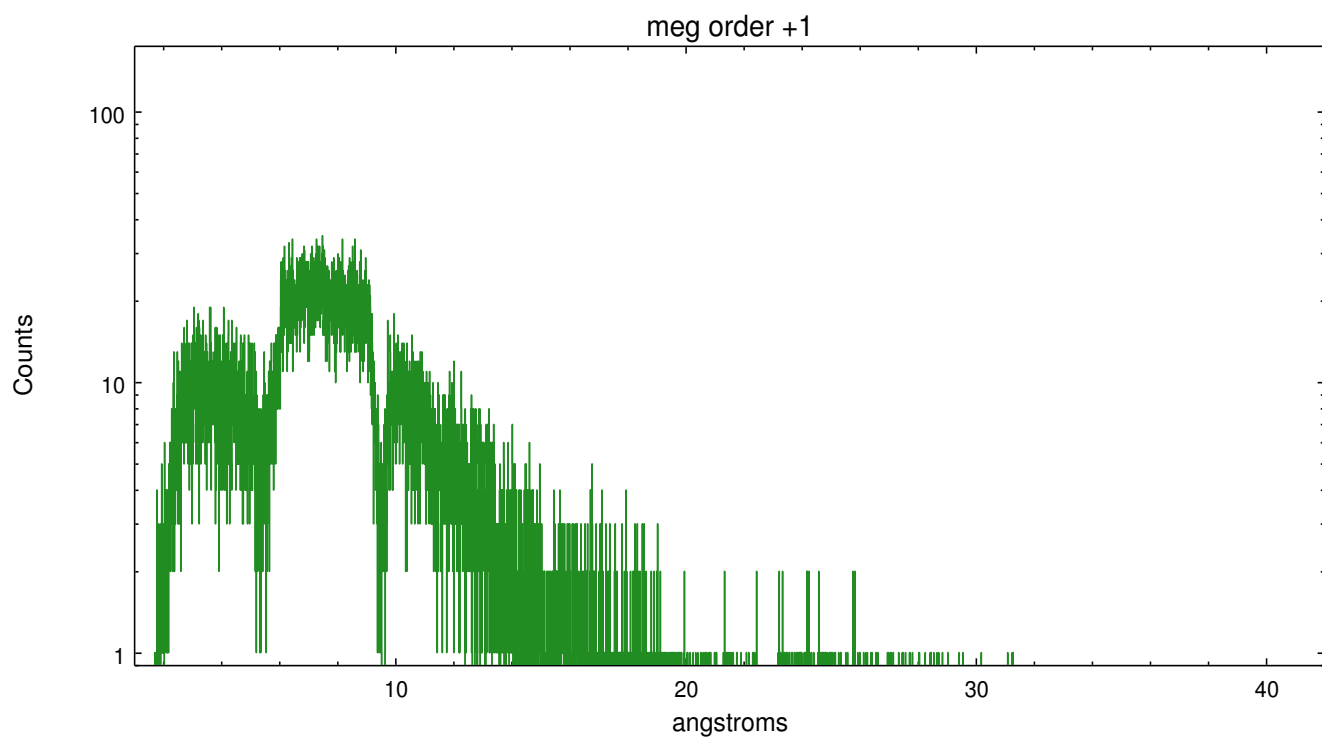
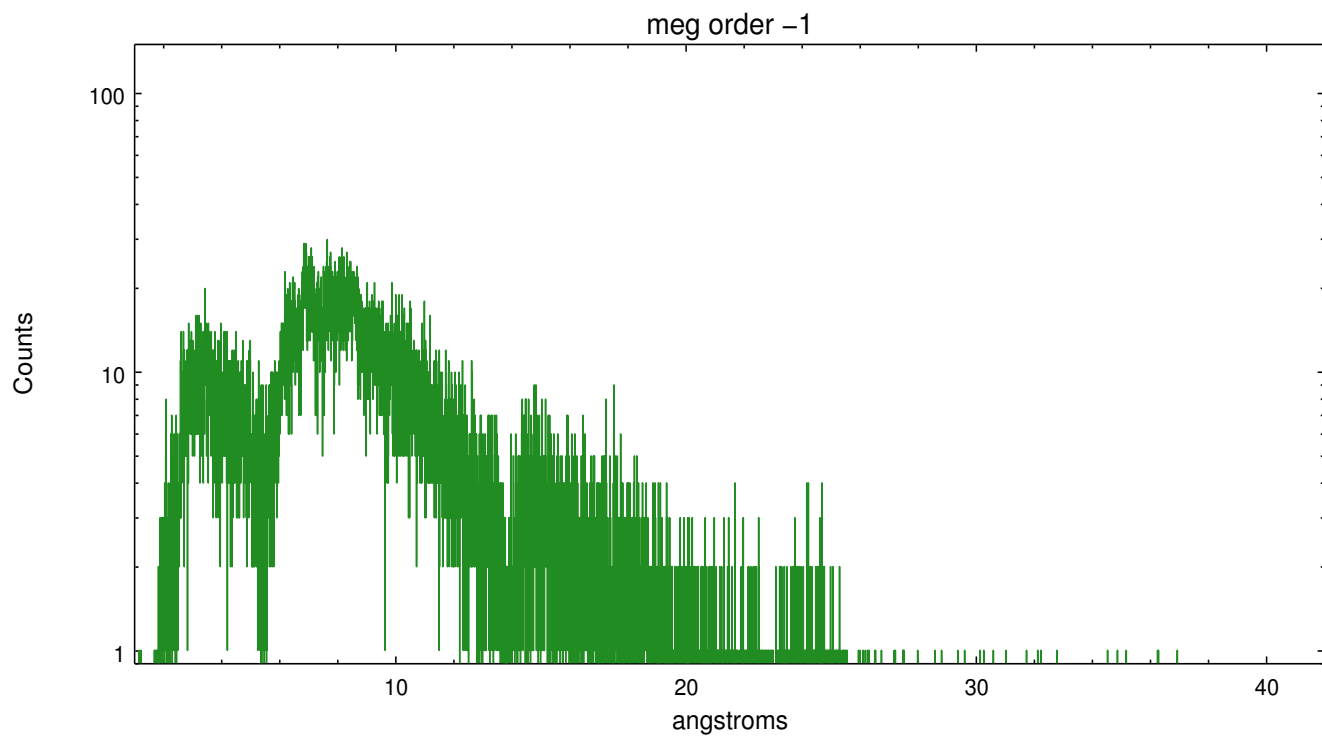
Spot Image MEG



Full Detector MEG

	order	order	order	order	order	order	order
	-3	-2	-1	0	1	2	3
Events	2669	1152	26047	21094	27314	1034	2207





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2013.01.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	64.92

## A.2 Comments