

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 3668 - L2 Version 4  
Chandra X-Ray Center

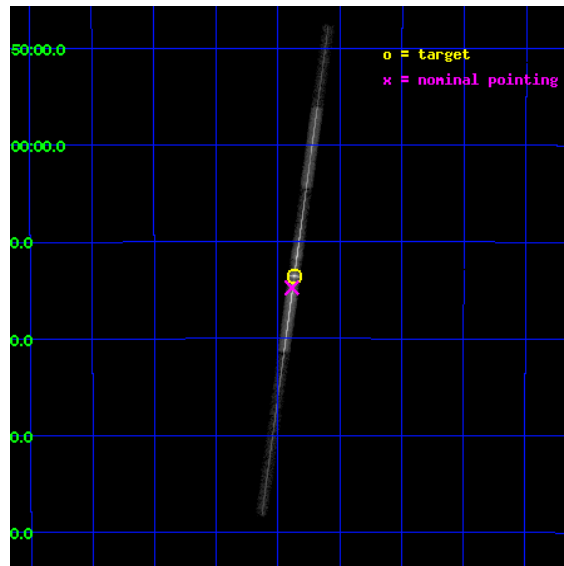
L2 Processing Date : Oct 9 2012

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# 1 Front

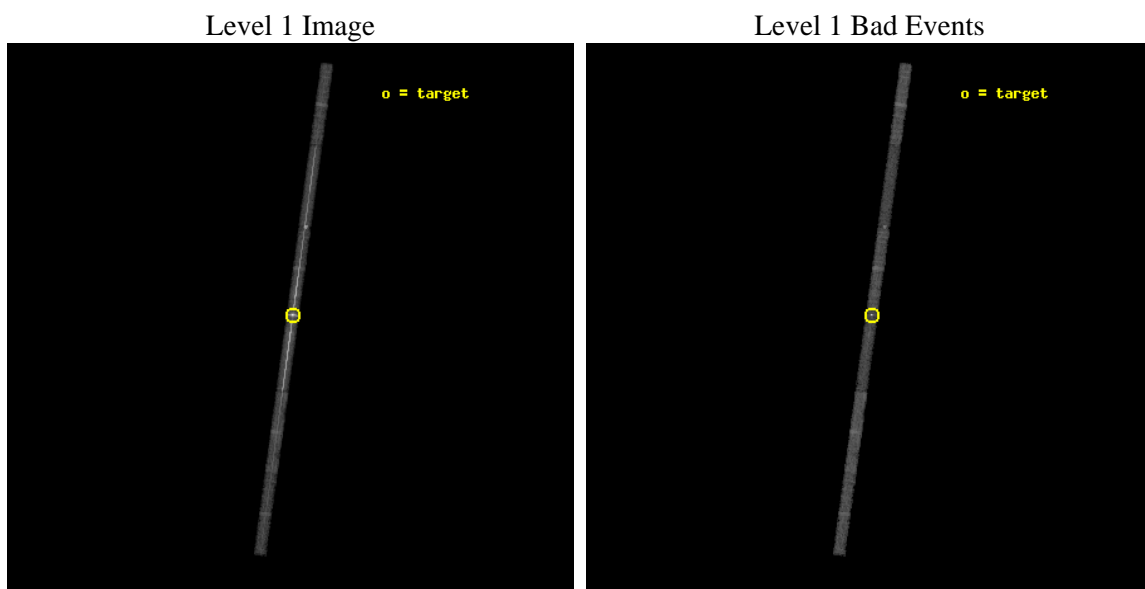
seq_num	790080	Sequence number
obs_id	3668	Observation id
title	INVESTIGATING THE CONTAMINATION BUILD-UP ON ACIS	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	PKS2155-304	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	329.716667	Observer's specified target RA [deg]
dec_targ	-30.225556	Observer's specified target Dec [deg]
ra_nom	329.72181973424	Nominal RA [deg]
dec_nom	-30.246067896189	Nominal Dec [deg]
roll_nom	97.855381071292	Nominal Roll [deg]
revision	4	Processing version of data
ontime	14264.480437934	Sum of GTIs [s]
livetime	13474.490319759	Livetime [s]
ontime4	14264.521477938	Sum of GTIs [s]
ontime5	14264.439397931	Sum of GTIs [s]
ontime6	14264.398357928	Sum of GTIs [s]
ontime7	14264.480437934	Sum of GTIs [s]
ontime8	14264.357317924	Sum of GTIs [s]
ontime9	14264.316277951	Sum of GTIs [s]
l2events	178455	Number of level 2 events



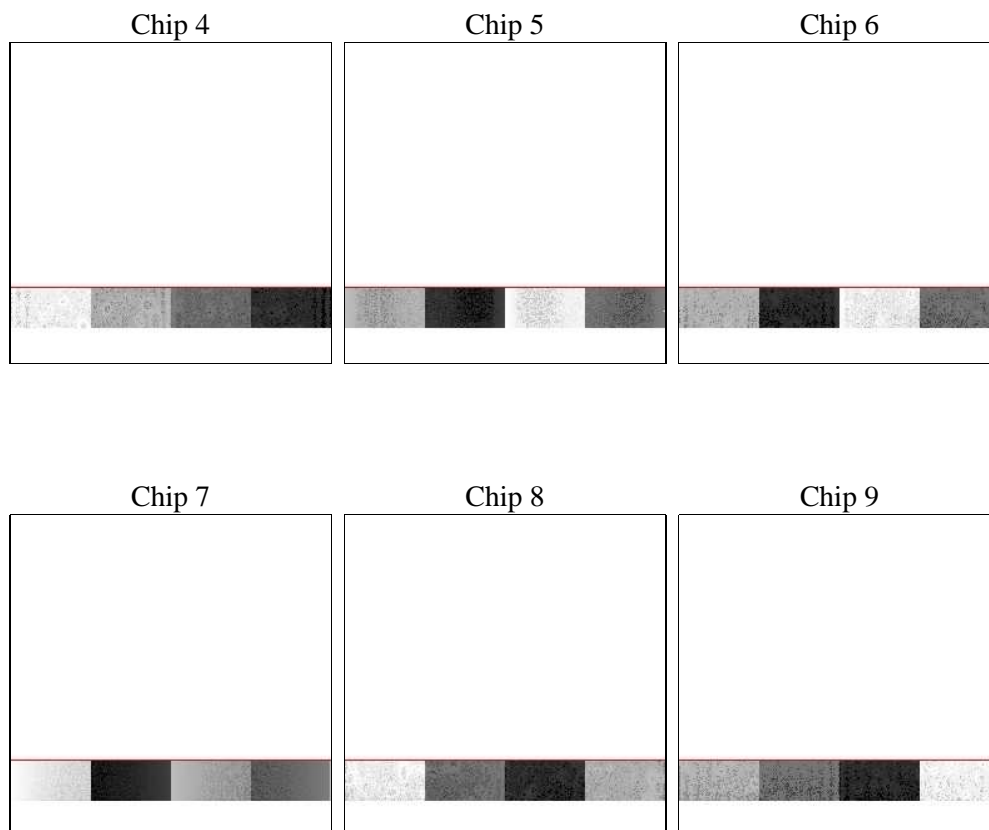
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	14500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	14264.480437934	Sum of GTIs [s]
caldsver	4.5.2	&#160	ontime4	14264.521477938	Sum of GTIs [s]
date	2012-10-09T04:01:47	Date and time of file creation	ontime5	14264.439397931	Sum of GTIs [s]
revision	4	Processing version of data	ontime6	14264.398357928	Sum of GTIs [s]
			ontime7	14264.480437934	Sum of GTIs [s]
			ontime8	14264.357317924	Sum of GTIs [s]
			ontime9	14264.316277951	Sum of GTIs [s]
			l1events	287657	Number of level 1 events

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	19445	37825	61948	126056	25955	16428
rejected events	16079	9205	14283	27346	17528	13055
rejected %	82%	24%	23%	21%	67%	79%

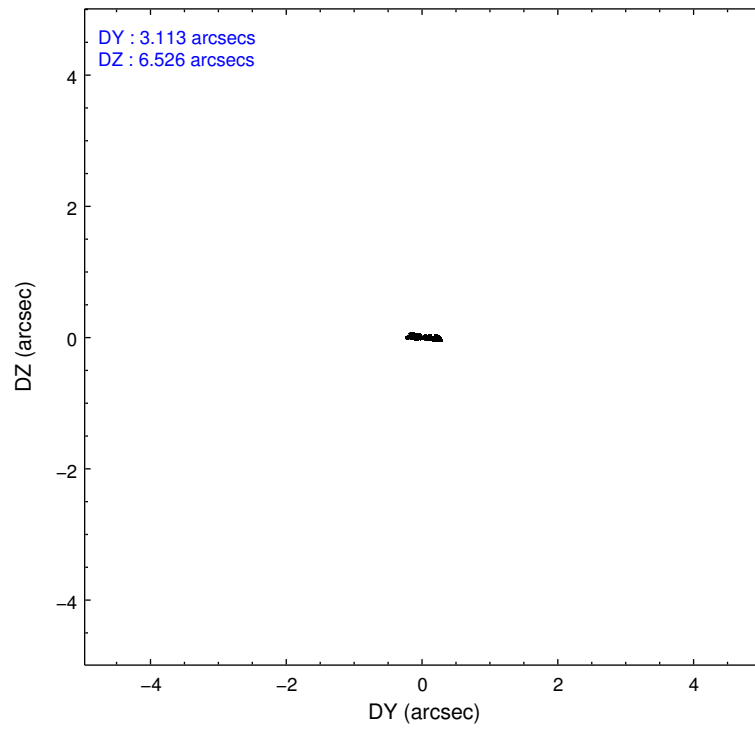
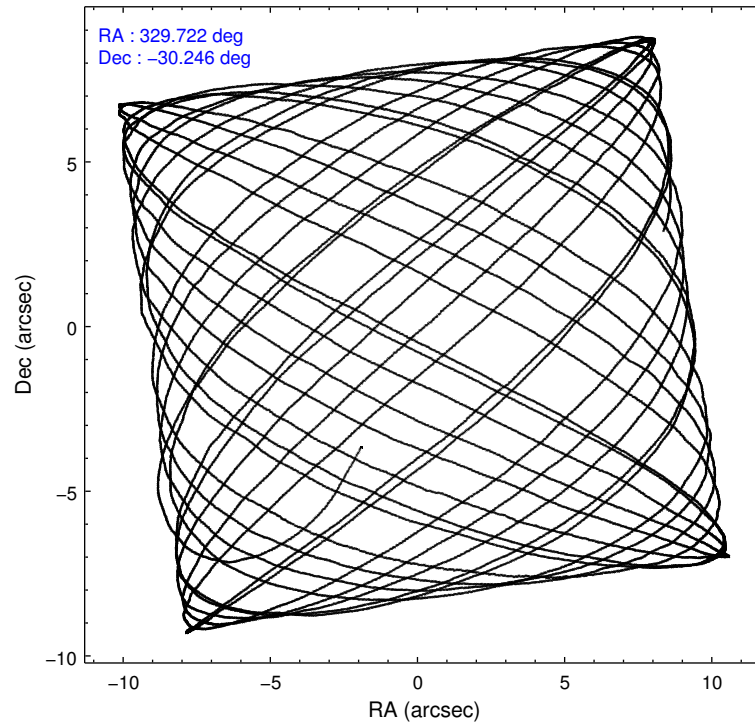
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	1931	14420	38761	27919	5105	2084
	9%	38%	62%	22%	19%	12%
grade 1 events	6	351	111	740	8	3
	0%	0%	0%	0%	0%	0%
grade 2 events	516	4907	4609	24282	995	419
	2%	12%	7%	19%	3%	2%
grade 3 events	338	2078	1543	11200	577	308
	1%	5%	2%	8%	2%	1%
grade 4 events	309	2482	1597	11190	591	280
	1%	6%	2%	8%	2%	1%
grade 5 events	448	1750	594	4687	648	475
	2%	4%	0%	3%	2%	2%
grade 6 events	272	4734	1163	24127	1159	282
	1%	12%	1%	19%	4%	1%
grade 7 events	15625	7103	13570	21911	16872	12577
	80%	18%	21%	17%	65%	76%

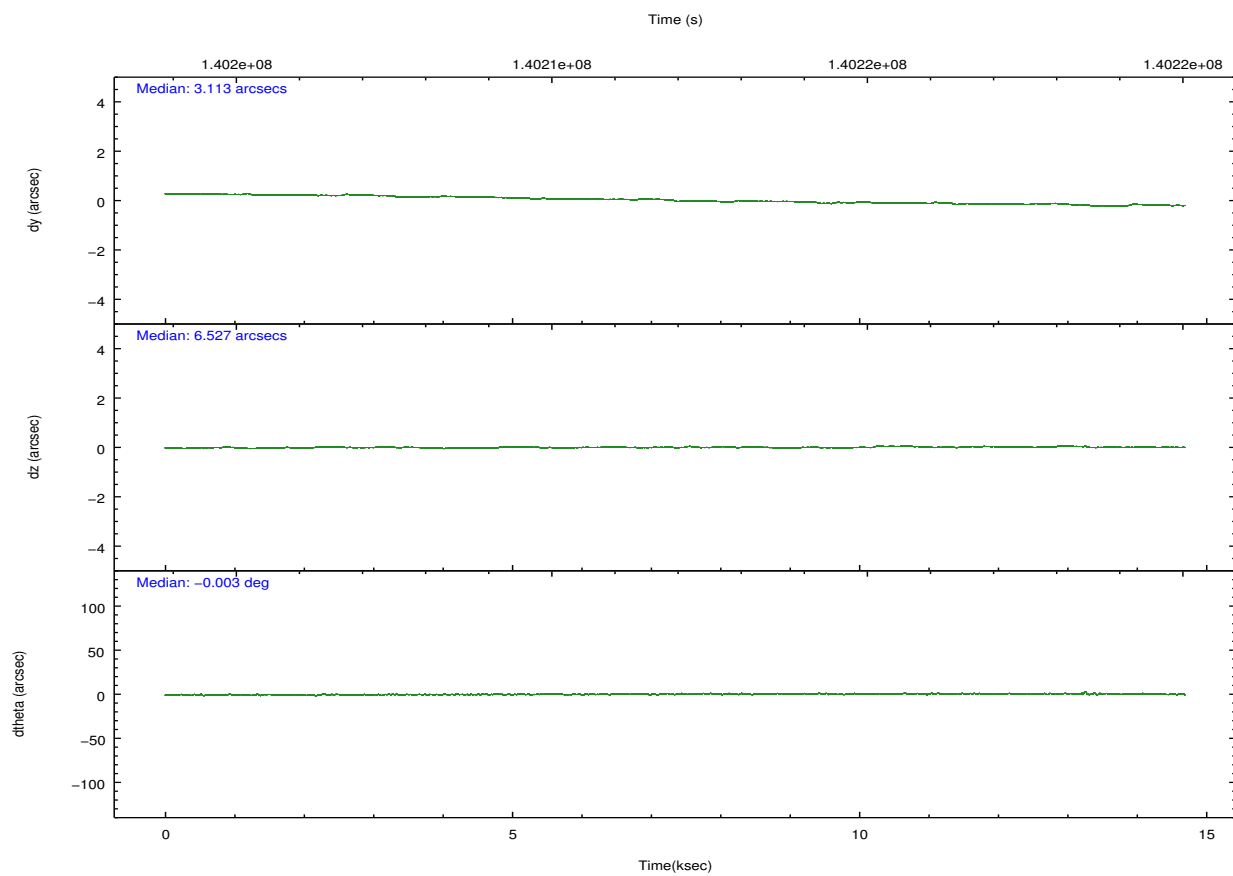
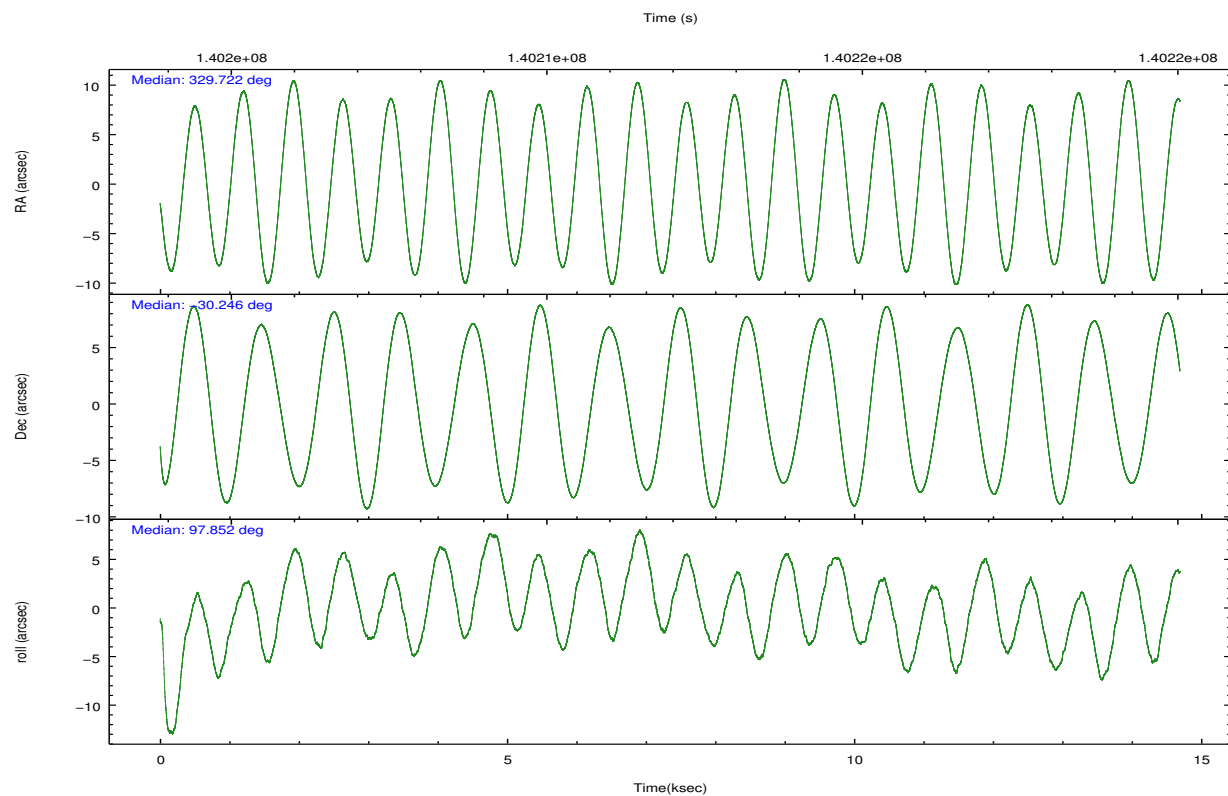


## 2.2 Compared Parameters

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	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
[deg] Pointing RA	329.741517	329.7218197342364	Subarray requested	CUSTOM	1/8
[deg] Pointing Dec	-30.267395	-30.24606789618864	Subarray start row	113	113
[deg] Pointing Roll	97.708672	97.8553810712917	Subarray row count	128	128
[s] Window start time (MET)	140054464.184000	140054464.184000	Alternating exposures requested	N	N
[s] Window stop time (MET)	143683264.184000	143683264.184000	[s] Primary exposure time	0.000000	0.7
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-182.132523	-182.1370004450064			
[mm] SIM translation stage offset	-8	-7.995522138001405			
[s] Observation start time (MET)	140204795.184000	140204224.6908			
Observation start date	2002-06-11T17:45:31	2002-06-11T17:37:04			
[s] Observation end time (MET)	140219295.184000	140219519.22893			
Observation end date	2002-06-11T21:47:11	2002-06-11T21:51:59			
Read mode	TIMED	TIMED			

## 2.3 Aspect



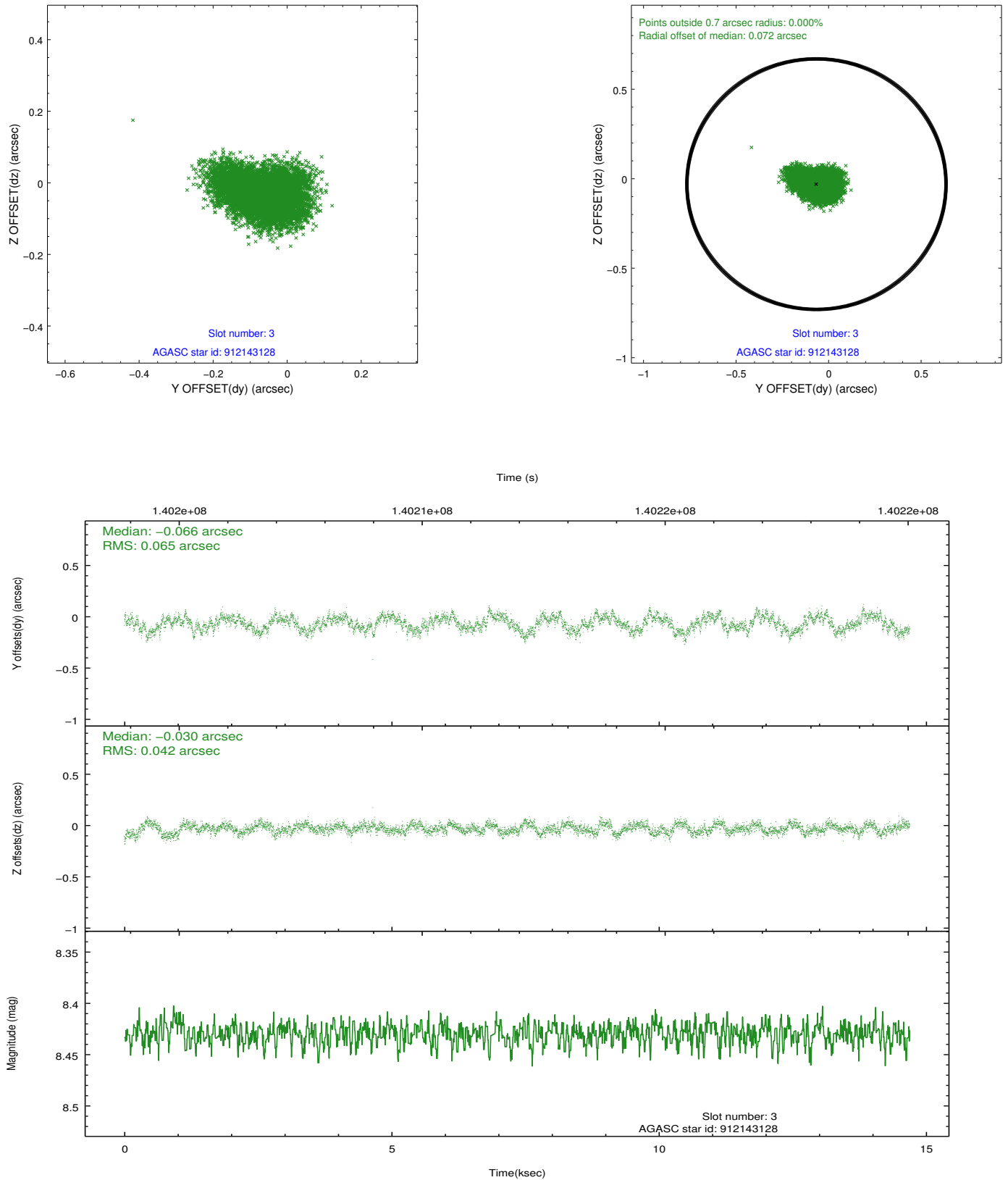


### Slot Statistics

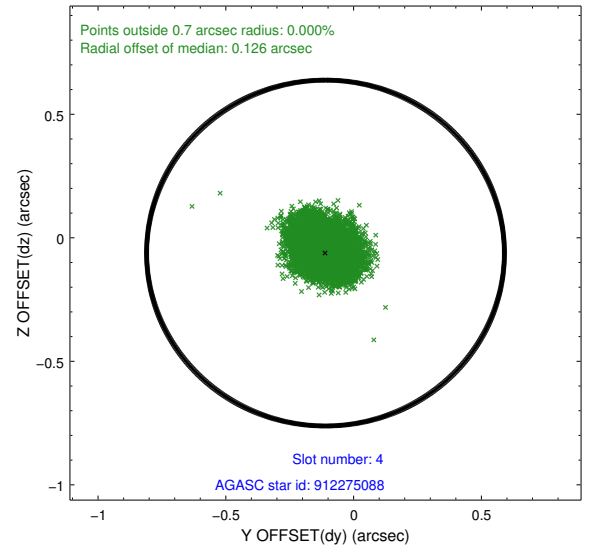
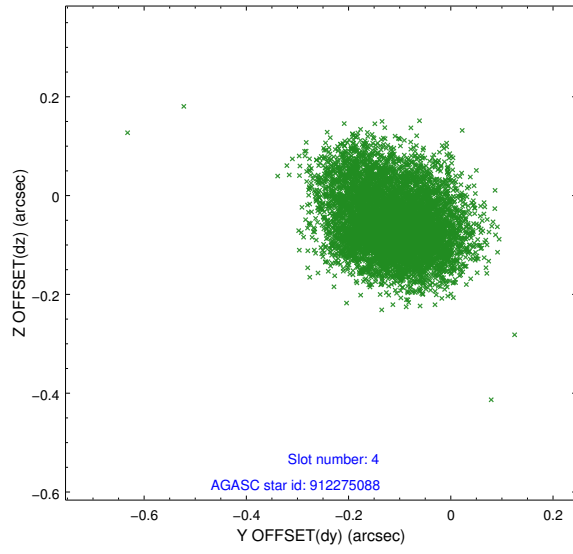
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.09	3582	-0.039	-0.107	0.007	0.011	0.000000	0.000000	-755.27	-1892.49
1	FID	ACIS-S-4	7.18	3582	0.051	0.047	0.006	0.011	0.000000	0.000000	2157.98	15.74
2	FID	ACIS-S-5	7.23	3583	-0.043	0.068	0.007	0.011	0.000000	0.000000	-1807.69	9.82
3	GUIDE	912143128	8.43	7167	-0.066	-0.030	0.083	0.131	328.924992	-29.706140	2334.94	2260.09
4	GUIDE	912275088	9.06	7162	-0.110	-0.062	0.098	0.160	329.619228	-29.738698	1937.20	123.57
5	GUIDE	981478152	9.40	7162	0.030	-0.096	0.132	0.201	329.415589	-30.057192	884.75	904.70
6	GUIDE	981468128	9.33	7146	0.207	0.251	0.189	0.263	329.756350	-30.158334	382.97	-98.43
7	GUIDE	981469488	9.57	7160	-0.048	-0.063	0.155	0.246	329.261199	-30.045155	990.22	1376.02

## 2.4 Star Slots

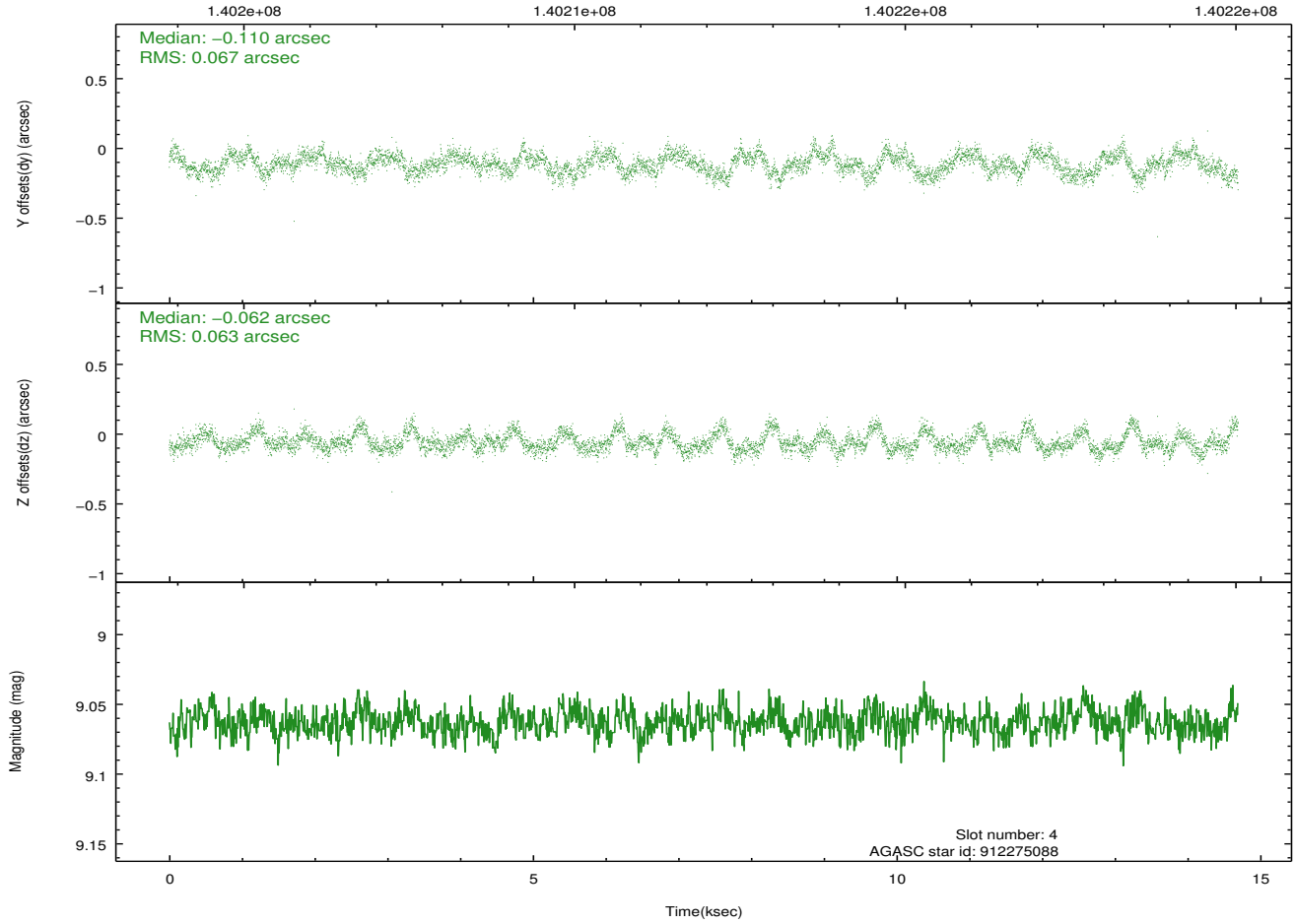
### 2.4.1 Slot 3



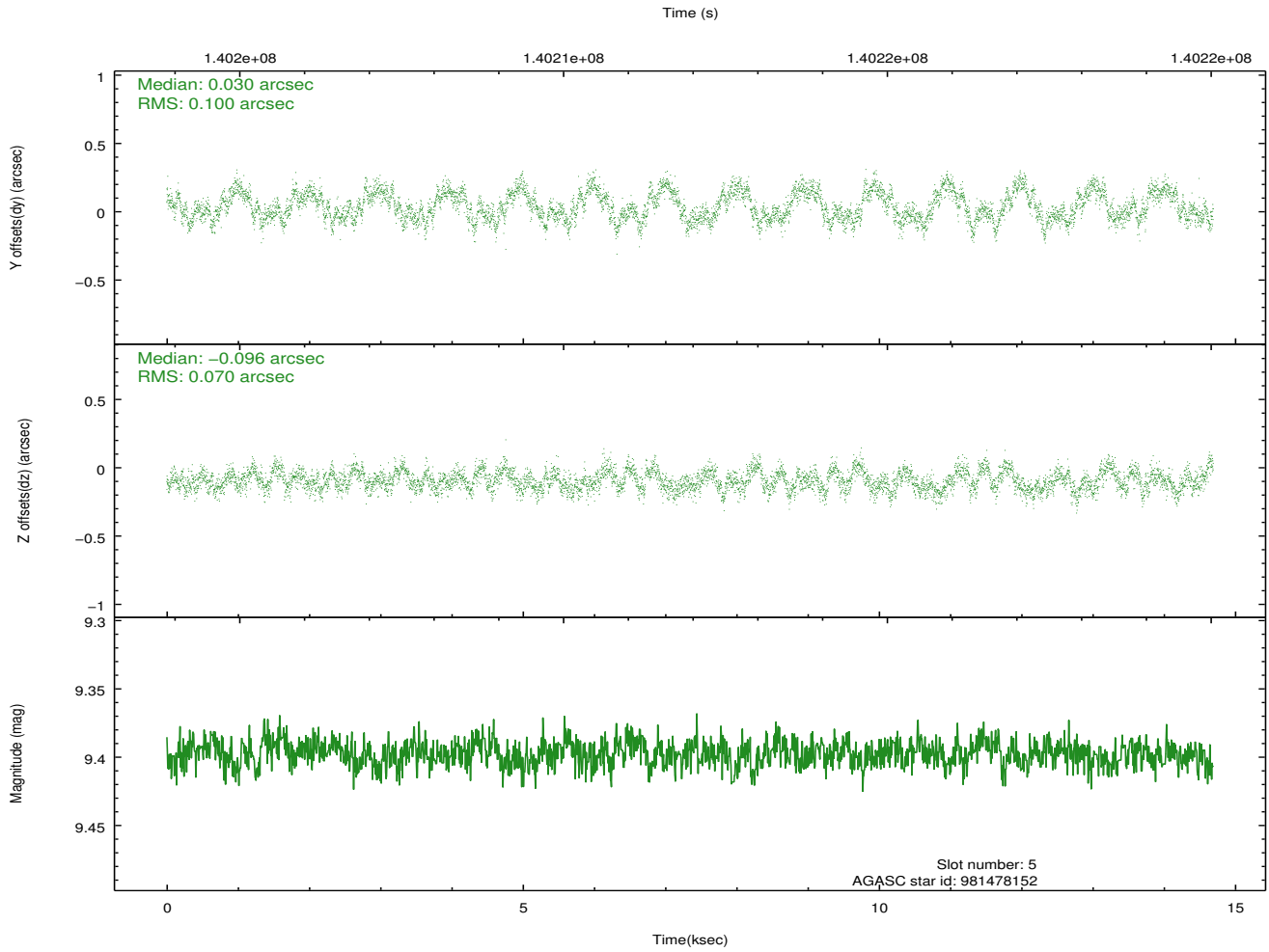
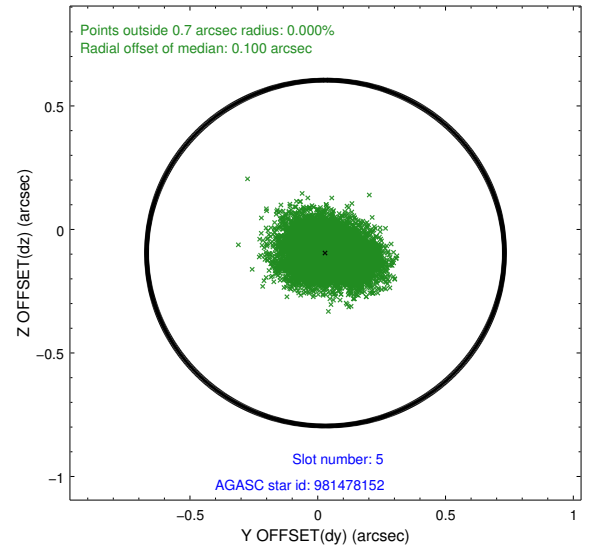
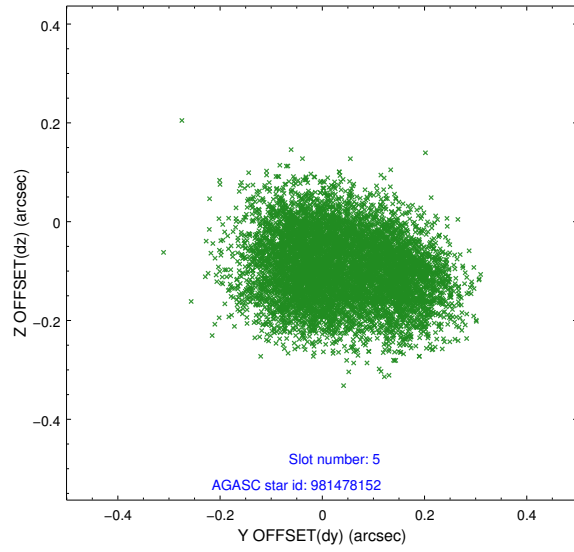
## 2.4.2 Slot 4



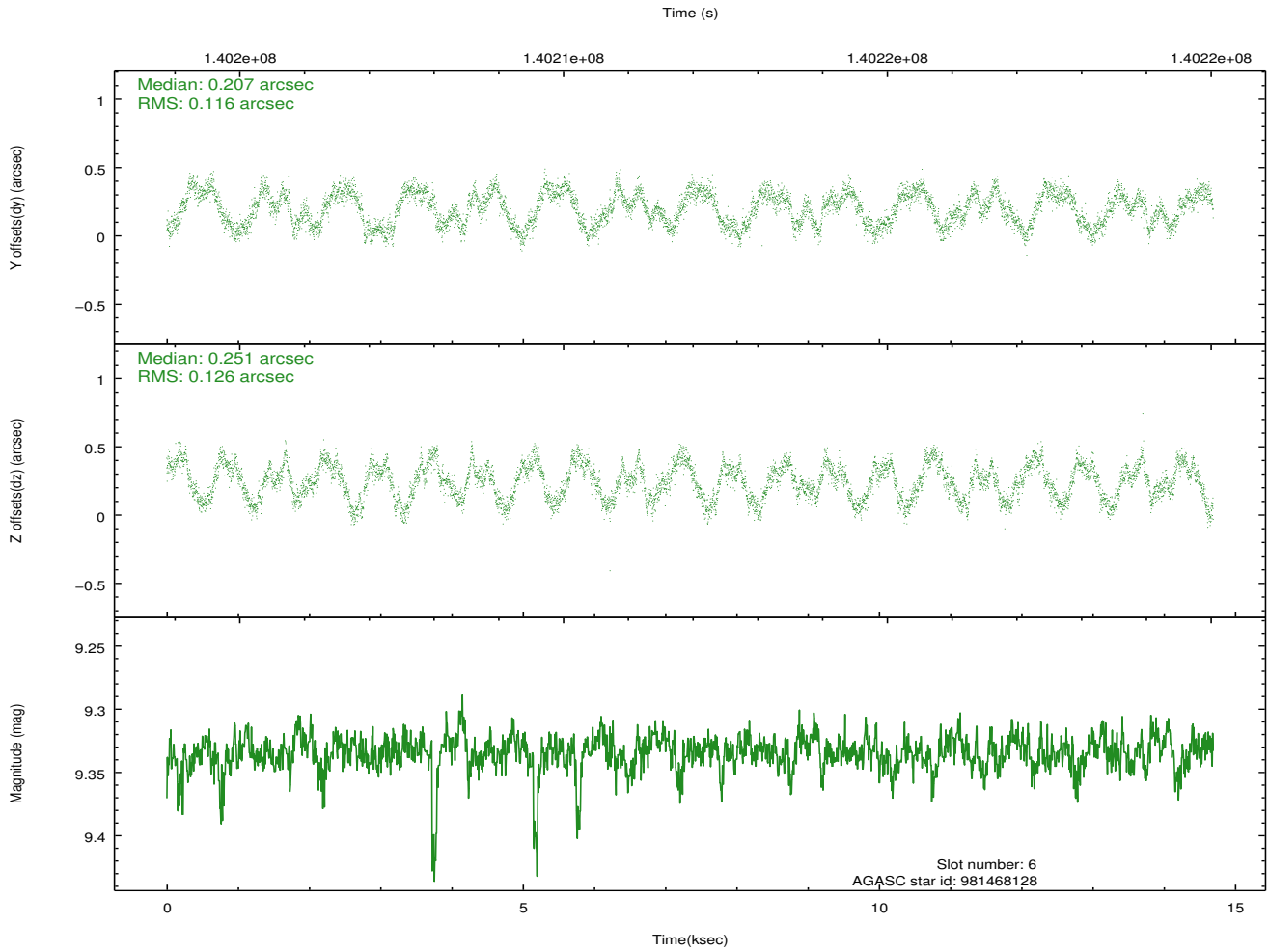
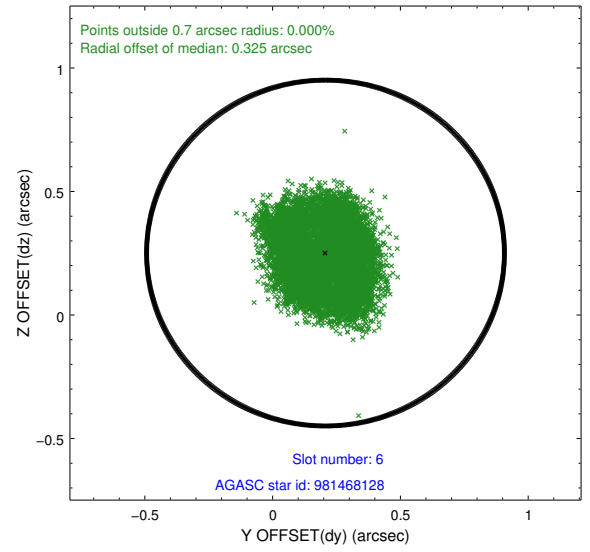
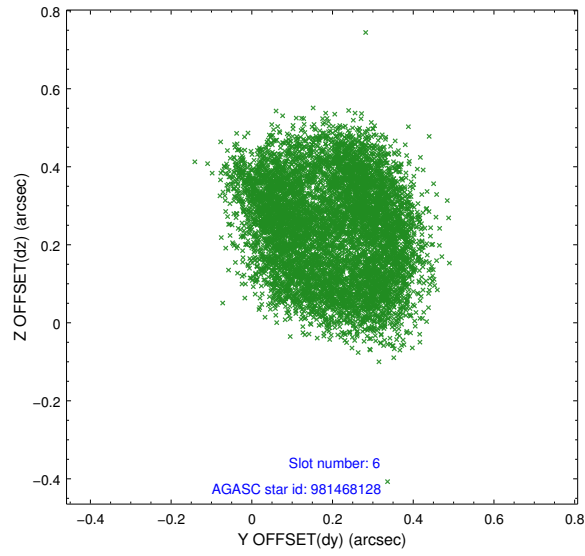
Time (s)



### 2.4.3 Slot 5

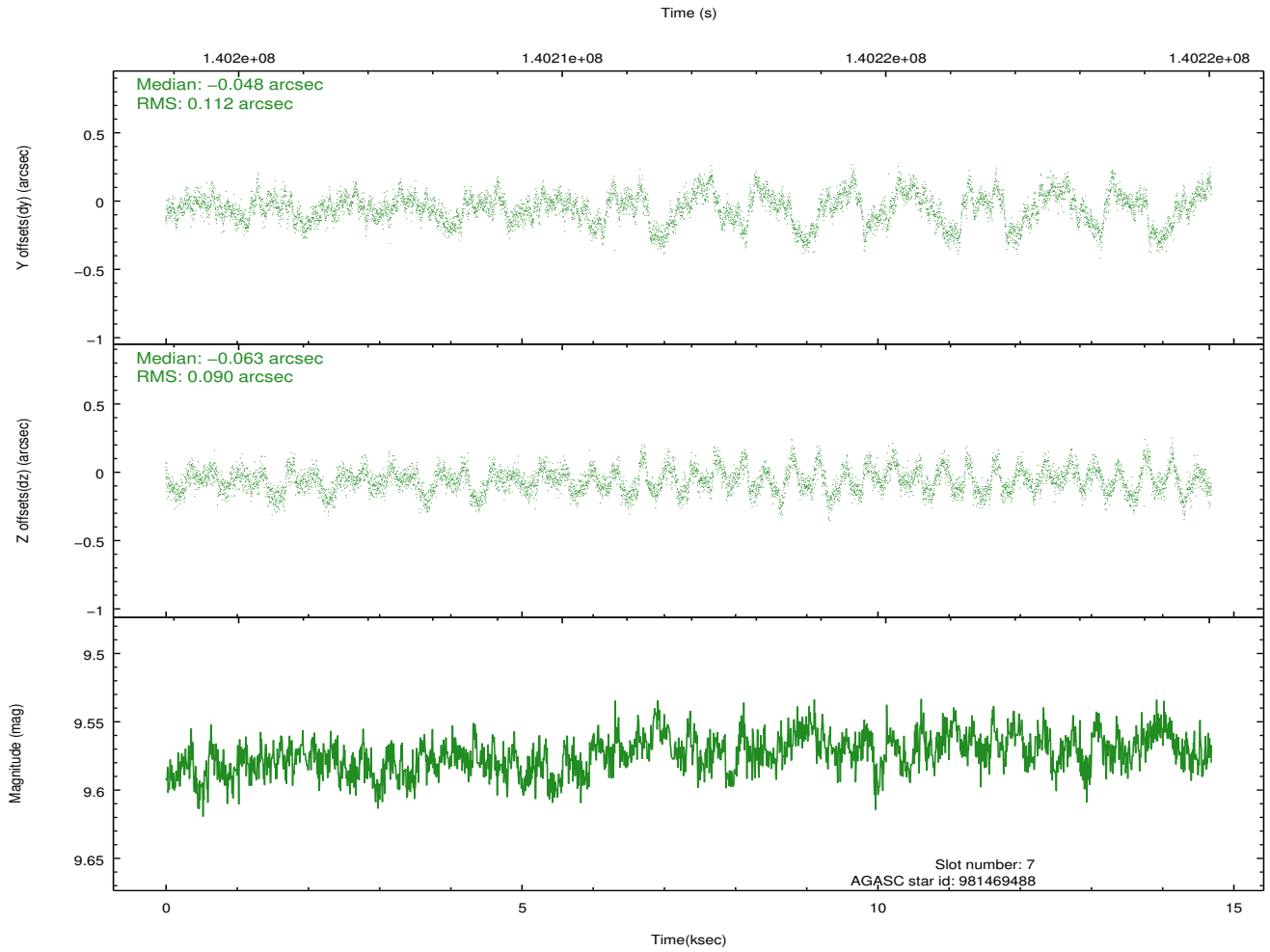
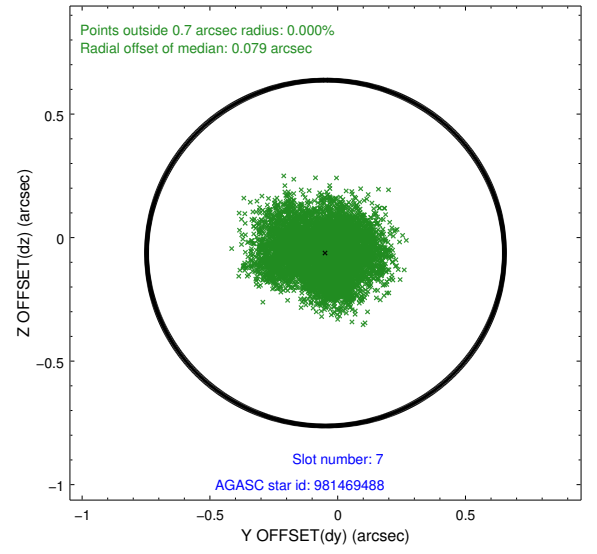
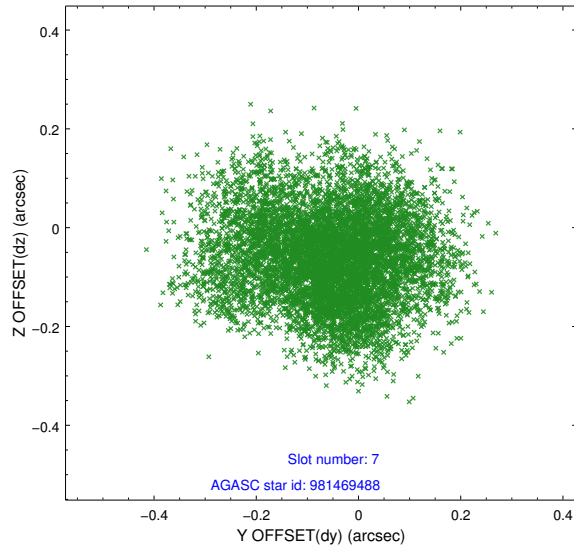


## 2.4.4 Slot 6



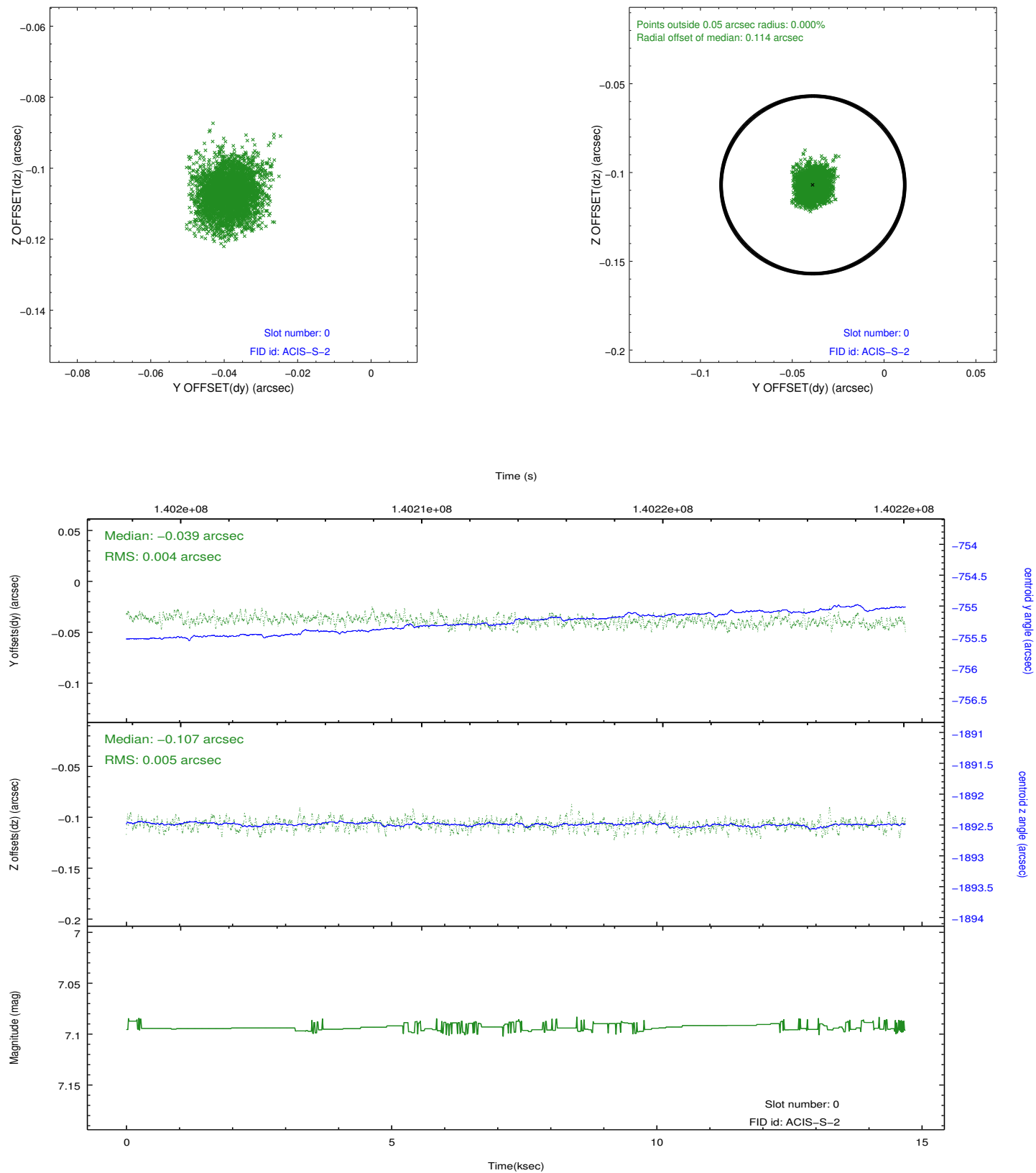


## 2.4.5 Slot 7

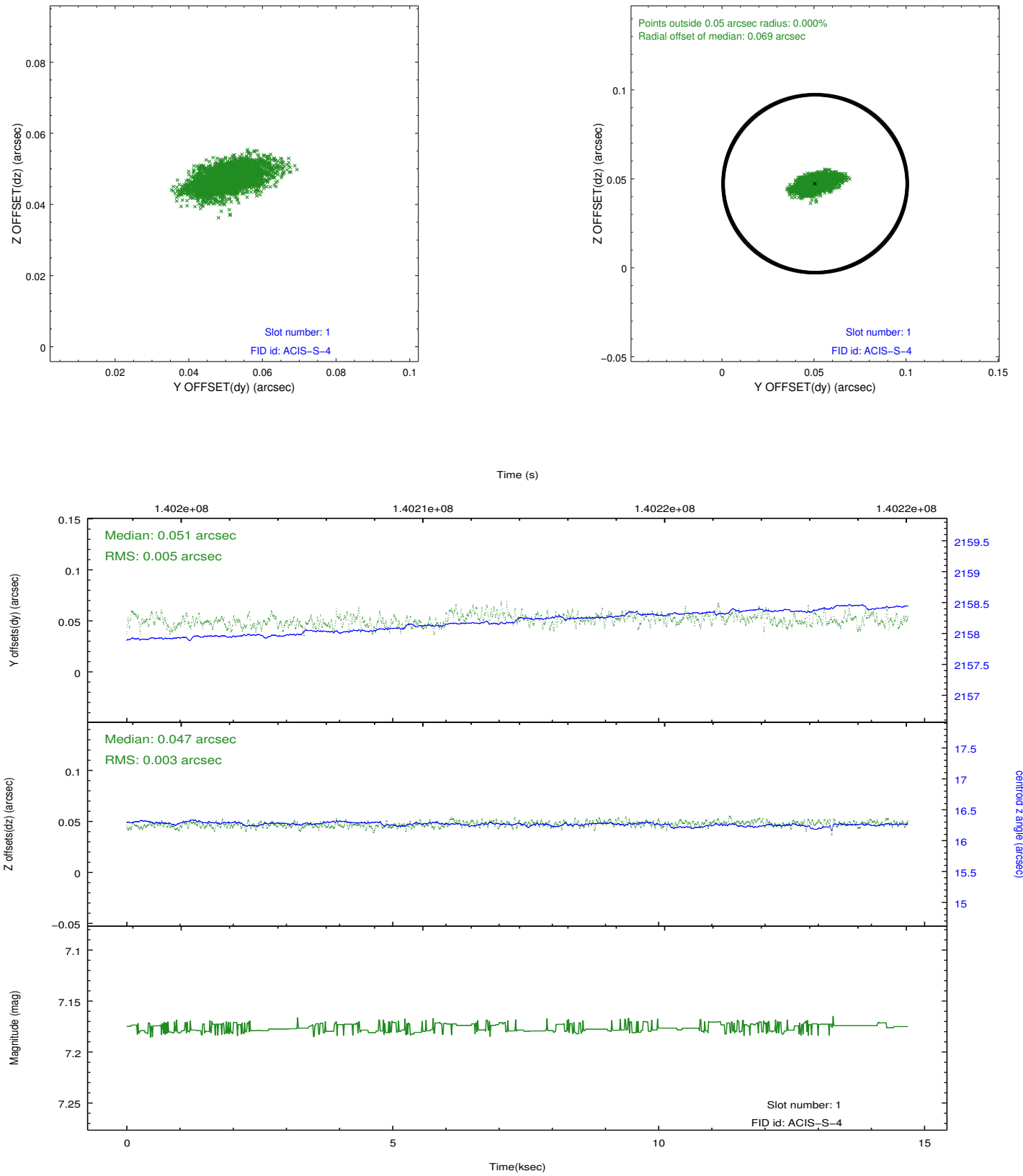


## 2.5 FID Slots

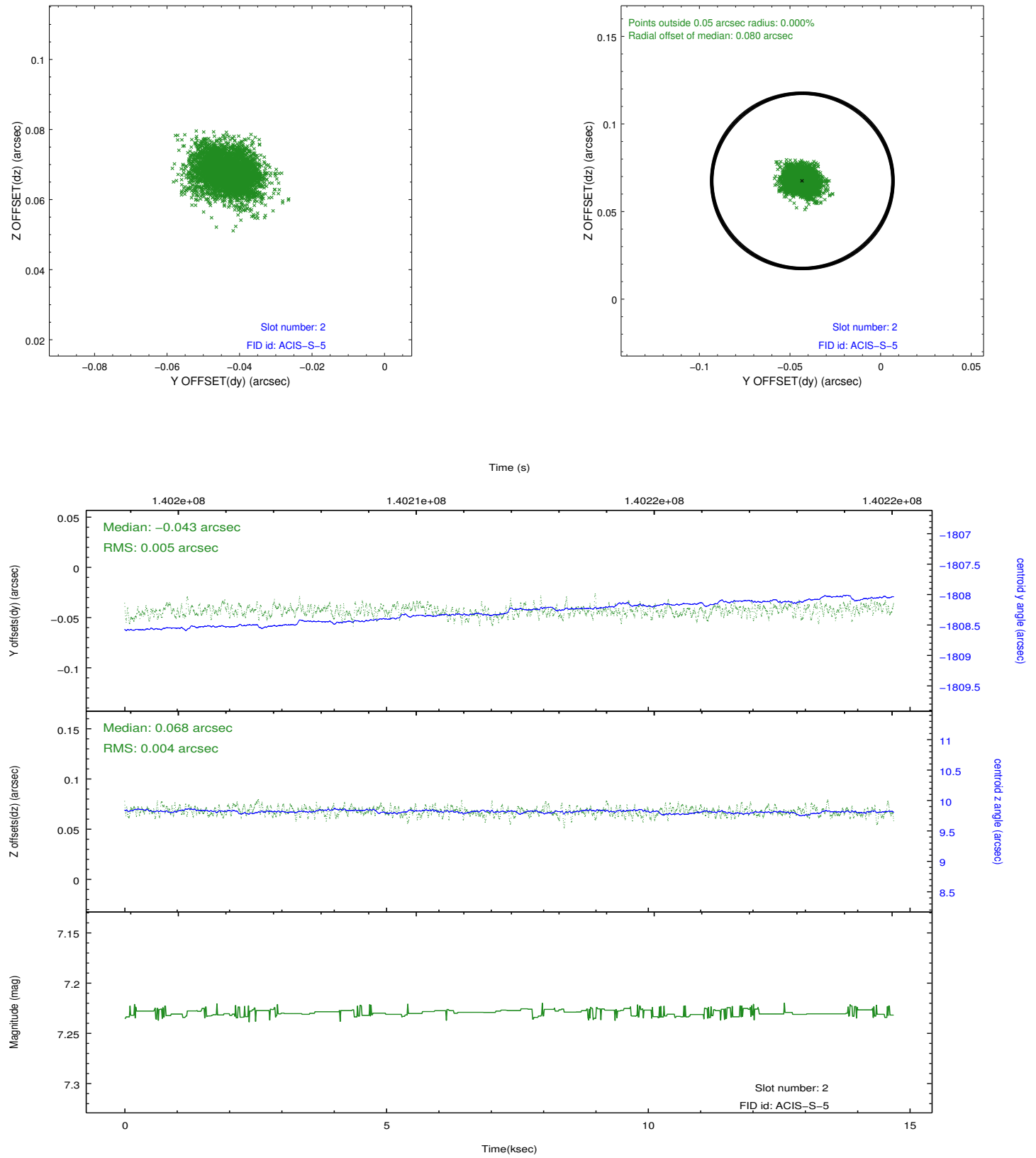
### 2.5.1 Slot 0



## 2.5.2 Slot 1

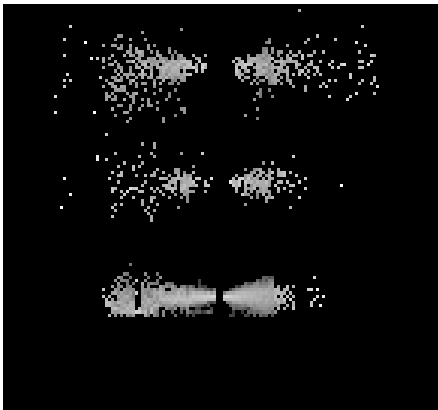


### 2.5.3 Slot 2

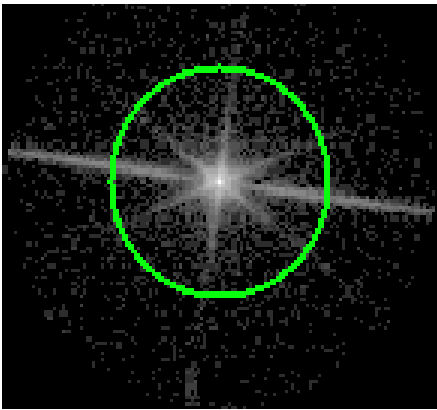


# 3 Gratings

## 3.1 LETG Arm



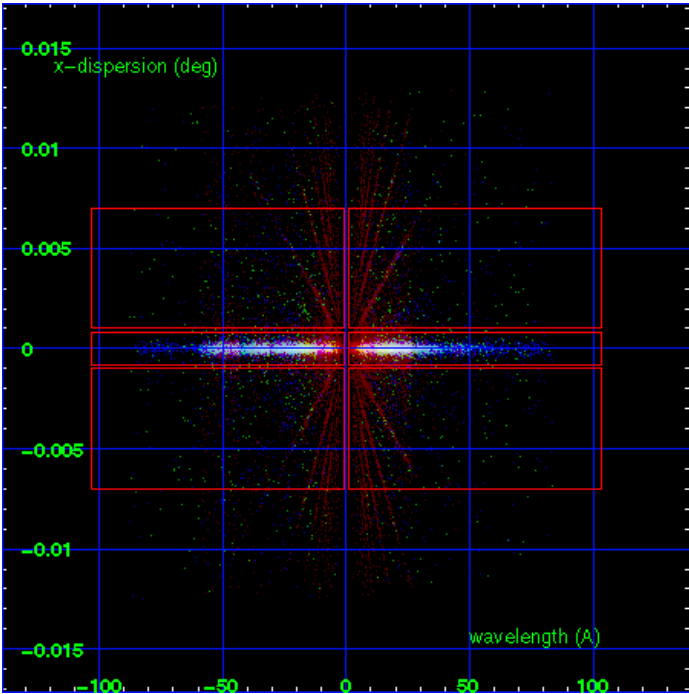
LETG Order Sort 123



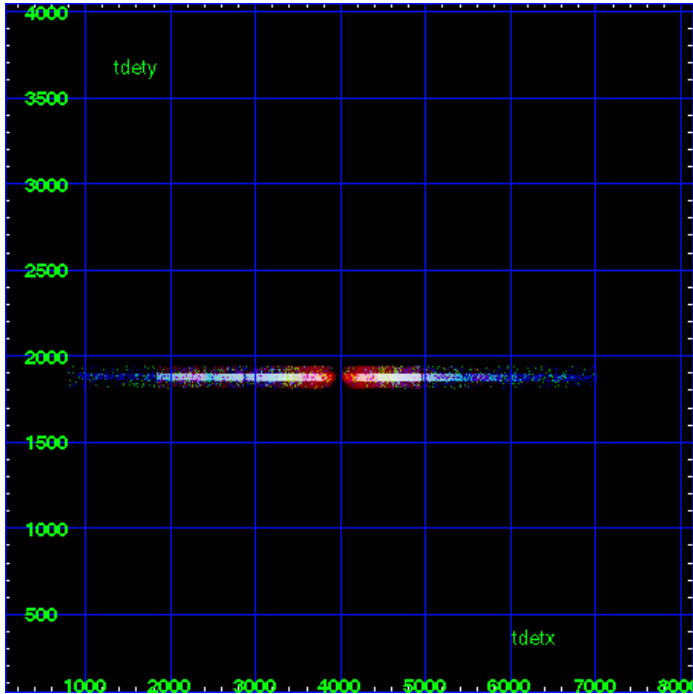
LETG Zero Order



LETG Order Sort ALL

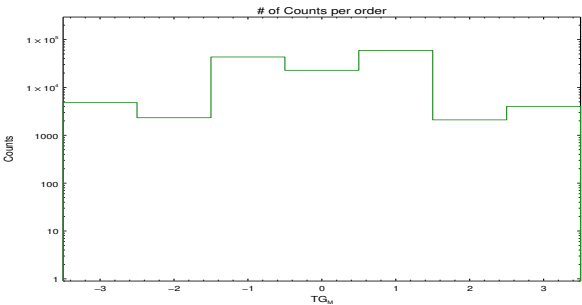


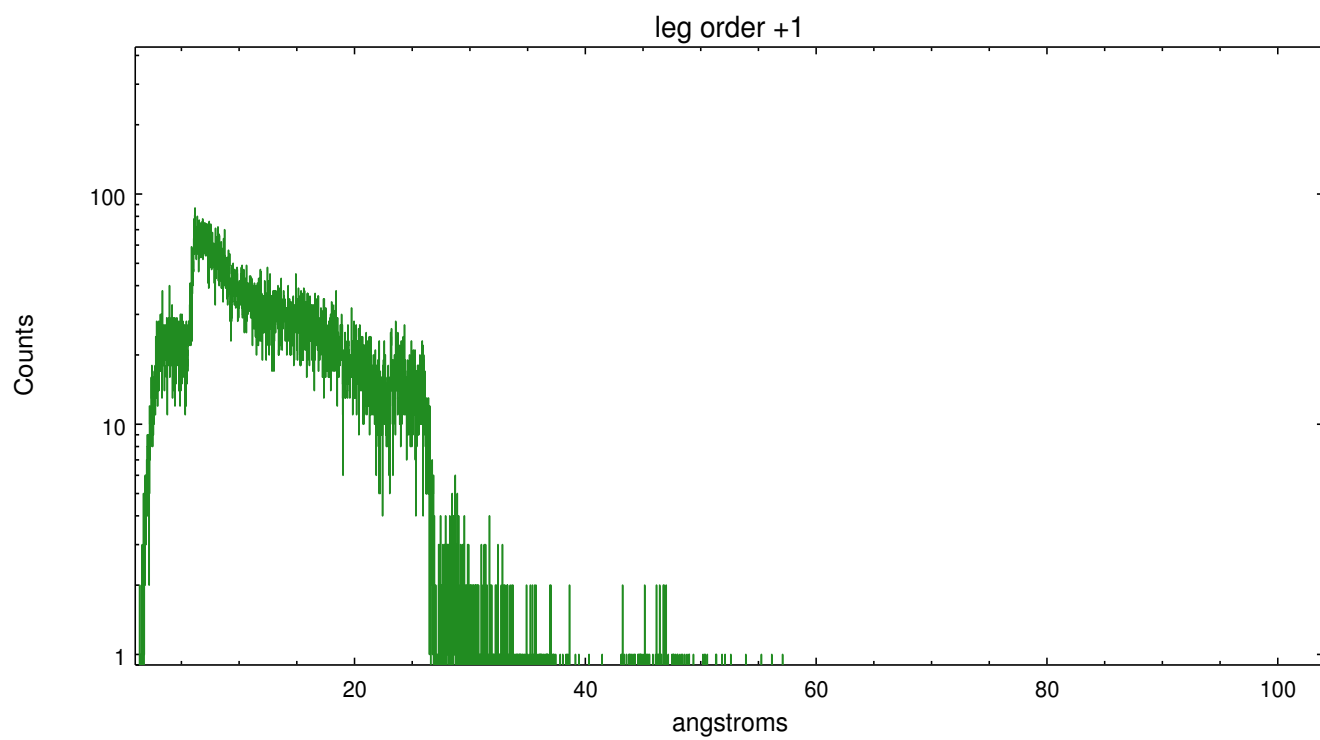
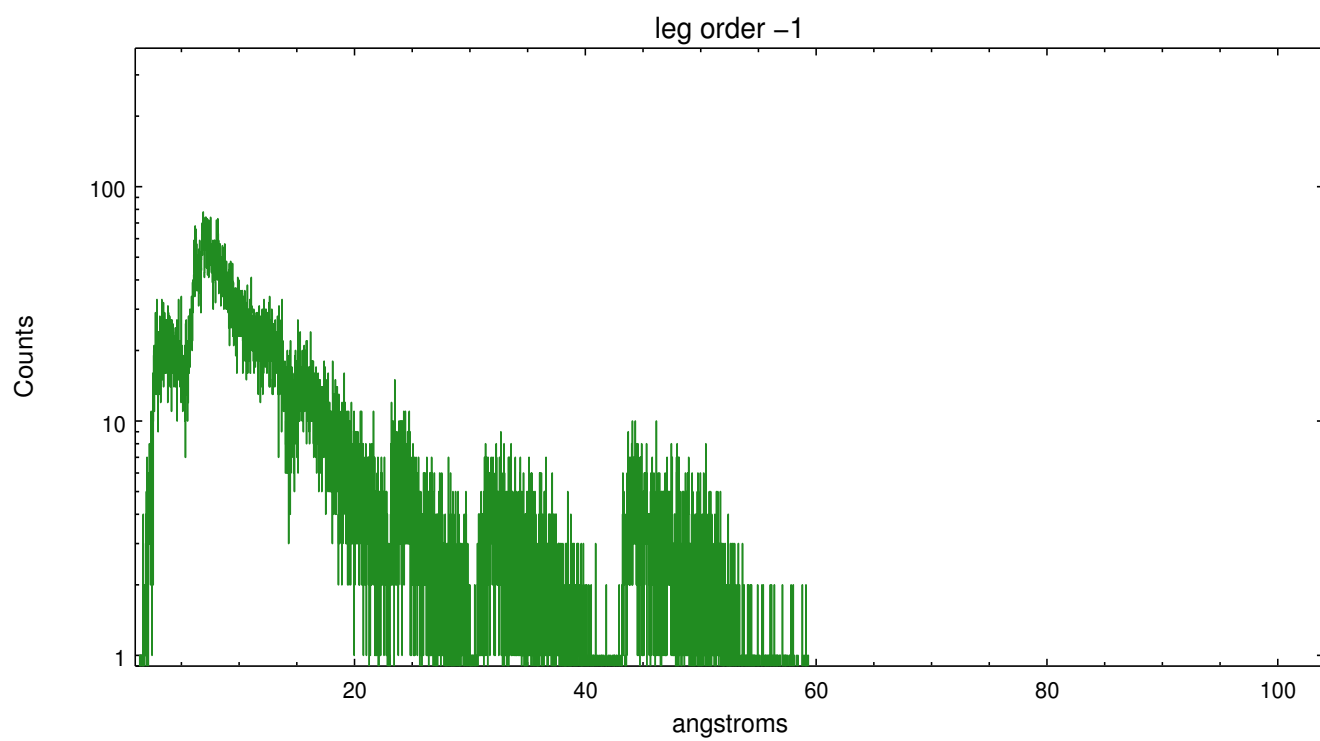
Spot Image LETG



Full Detector LETG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	4812	2330	43309	22769	59134	2100	4017





## A Summary

### A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2013.01.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.264

### A.2 Comments