

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2479 - L2 Version 3  
Chandra X-Ray Center

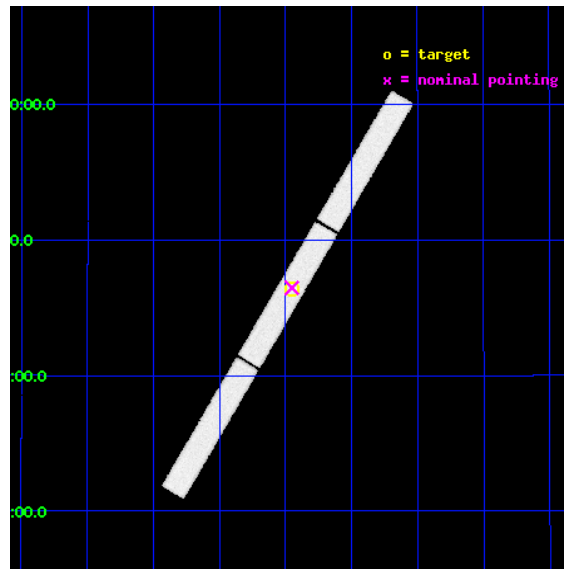
L2 Processing Date : Sep 20 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Parameters . . . . .	4
2.1.3	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>3</b>	<b>Gratings</b>	<b>17</b>
3.1	LETG Arm . . . . .	17
<b>A</b>	<b>Summary</b>	<b>19</b>
A.1	Status . . . . .	19
A.2	Comments . . . . .	19

# 1 Front

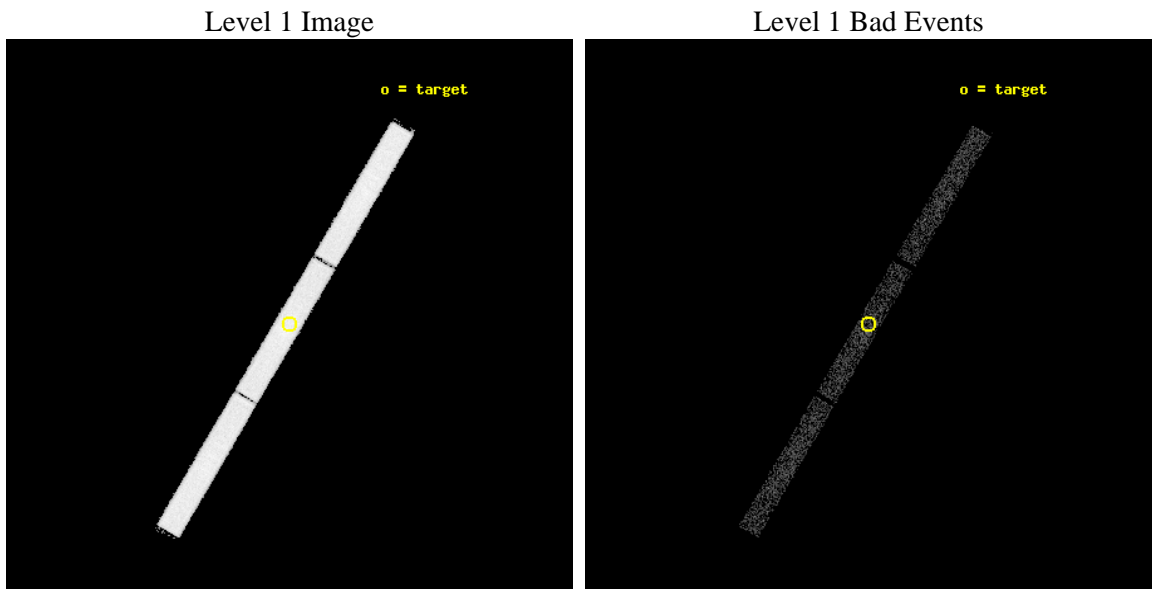
seq_num	100008	Sequence number
obs_id	2479	Observation id
title	SOLVING THE PUZZLE OF COMETARY X-RAY ORIGIN: OBSERVATIONS OF COMET 10P/TEMPEL 2	Proposal title
observer	DR W. THOMAS VESTRAND	Principal investigator
object	LINEAR 2001 A2	Source name
ra_targ	346.22815	Observer's specified target RA [deg]
dec_targ	9.32085	Observer's specified target Dec [deg]
ra_nom	346.22587563375	Nominal RA [deg]
dec_nom	9.3244913011324	Nominal Dec [deg]
roll_nom	120.40746433174	Nominal Roll [deg]
revision	3	Processing version of data
ontime	2394.6563436836	[s]
liveltime	2378.0502900152	Ontime multiplied by DTCOR
l2events	153446	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	2250.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	2394.6563436836	[s]
caldsver	4.5.1.1	&#160	l1events	243549	Number of level 1 events
date	2012-09-20T13:00:35	Date and time of file creation			
revision	3	Processing version of data			

### 2.1.3 Events

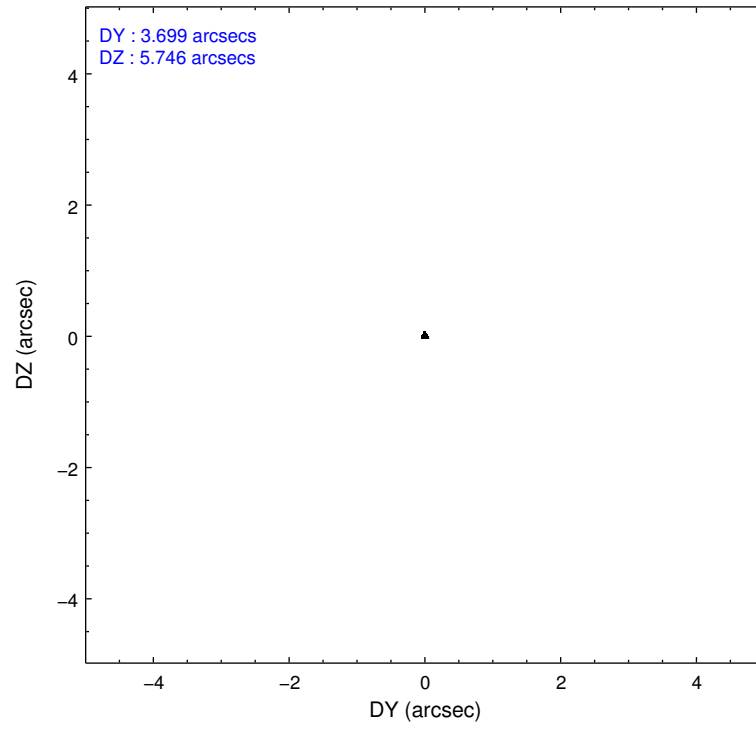
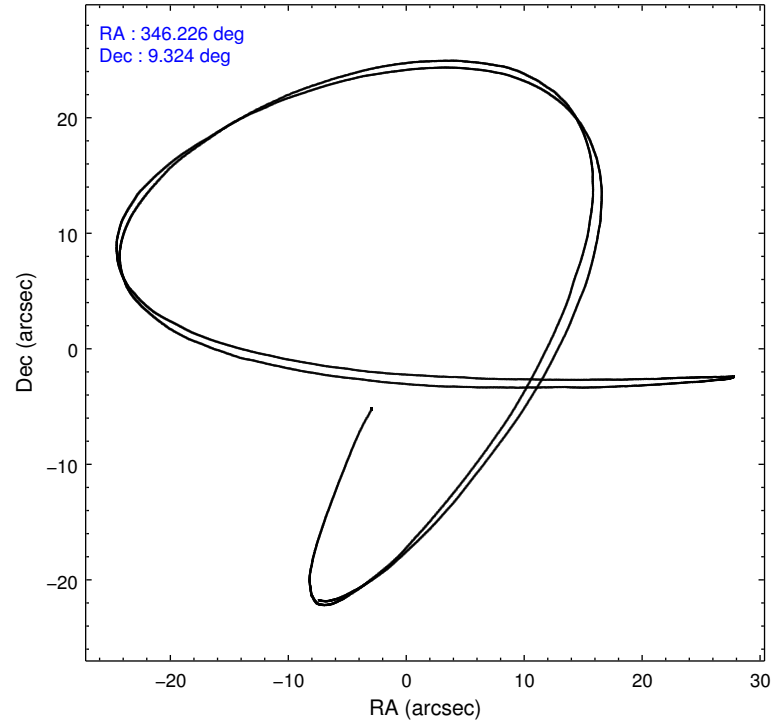
Level 1 Events

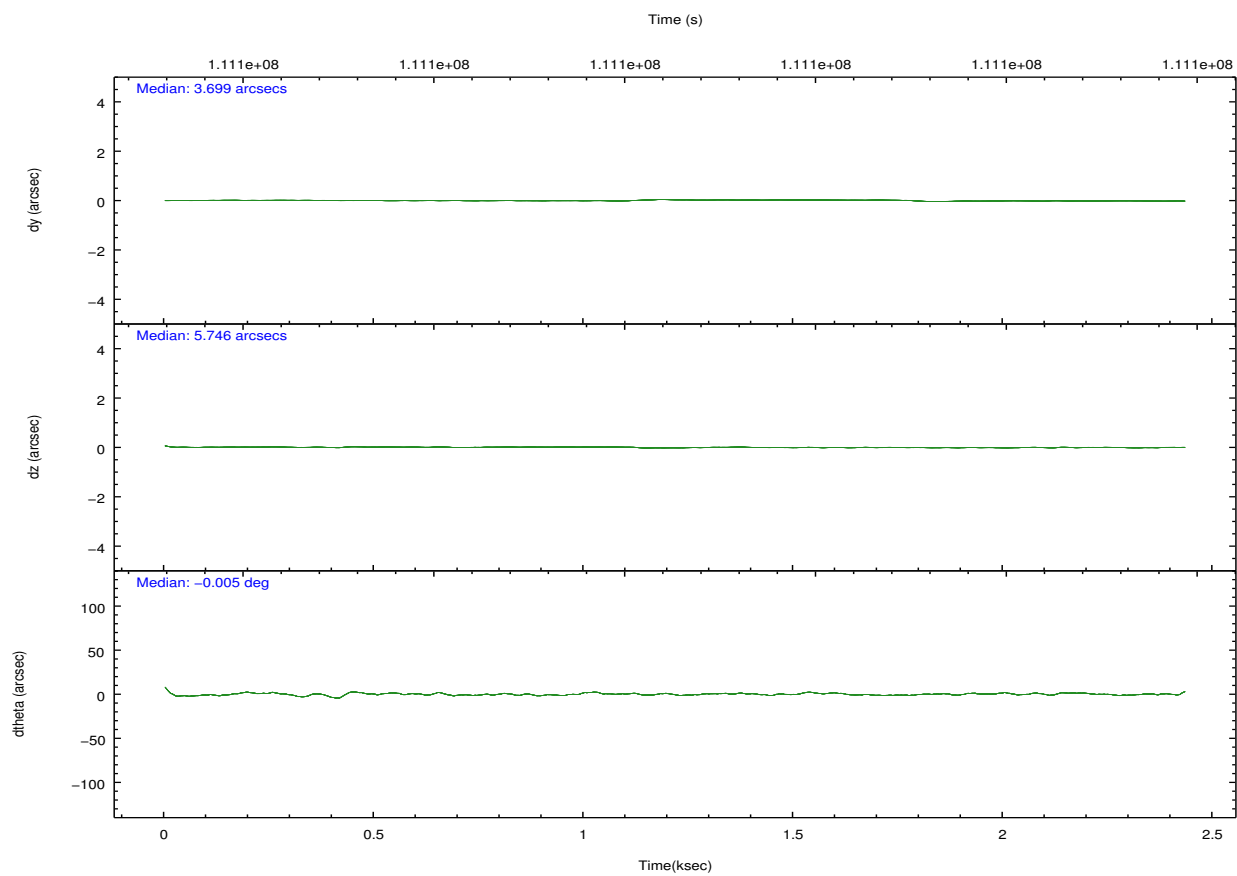
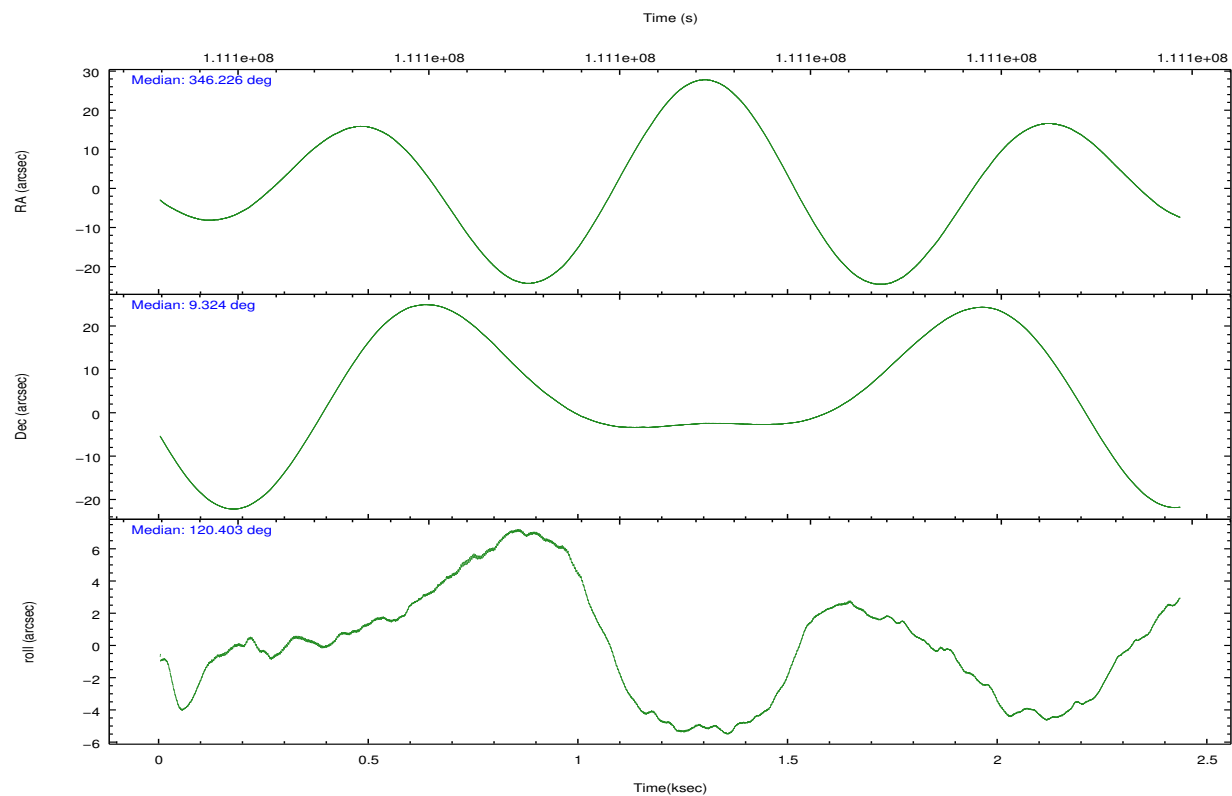
	segment 1	segment 2	segment 3
level 1 events	81337	79488	82724
rejected events	10475	10337	10474
rejected %	12%	13%	12%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar format version number	7	7
Detector	HRC-S	HRC-S	Obspar file type	PREDICTED	ACTUAL
Grating	LETG	LETG	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	346.251746	346.2258756337491			
[deg] Pointing Dec	9.312074	9.324491301132396			
[deg] Pointing Roll	120.335951	120.4074643317422			
[mm] SIM focus pos	-1.429586	-1.428180813131781			
[mm] SIM defocus	0.1037507710433287	0.1051558262725154			
[mm] SIM translation stage pos	250.455976	250.466033080201			
[mm] SIM translation stage offset	0	-0.01005468664627074			
[s] Observation start time (MET)	111100602.184000	111100225.41167			
Observation start date	2001-07-09T21:15:38	2001-07-09T21:10:25			
[s] Observation end time (MET)	111102852.184000	111102985.73678			
Observation end date	2001-07-09T21:53:08	2001-07-09T21:56:25			

## 2.3 Aspect





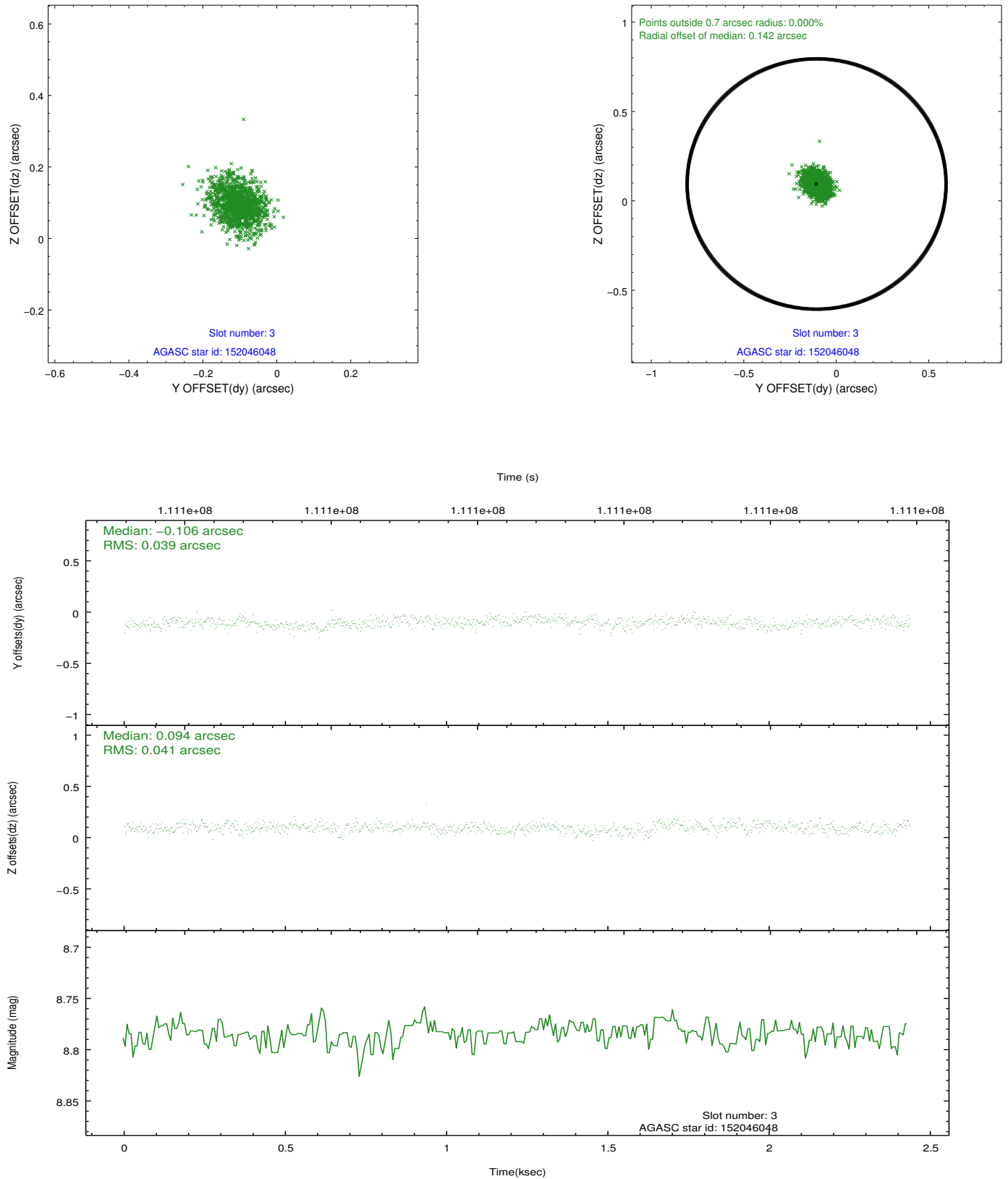
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-S-1	6.98	594	0.125	-0.150	0.007	0.011	0.000000	0.000000	-1157.76	-454.33
1	FID	HRC-S-3	7.00	594	0.167	-0.048	0.007	0.013	0.000000	0.000000	-1162.42	574.54
2	FID	HRC-S-4	6.93	594	0.096	-0.098	0.005	0.009	0.000000	0.000000	1238.48	578.86
3	GUIDE	152046048	8.78	1187	-0.106	0.094	0.060	0.098	346.265854	9.604114	884.68	-574.20
4	GUIDE	152048440	8.52	1187	0.180	-0.028	0.069	0.109	346.200519	9.070077	-656.39	596.47
5	GUIDE	152044352	9.55	1185	-0.121	0.140	0.097	0.158	346.242049	9.821046	1600.80	-895.21
6	GUIDE	152056136	6.62	1188	0.122	-0.071	0.060	0.095	346.466795	8.896005	-1674.76	95.23
7	GUIDE	152045968	9.15	1186	-0.078	-0.132	0.081	0.129	345.623620	9.582627	1969.58	1431.57

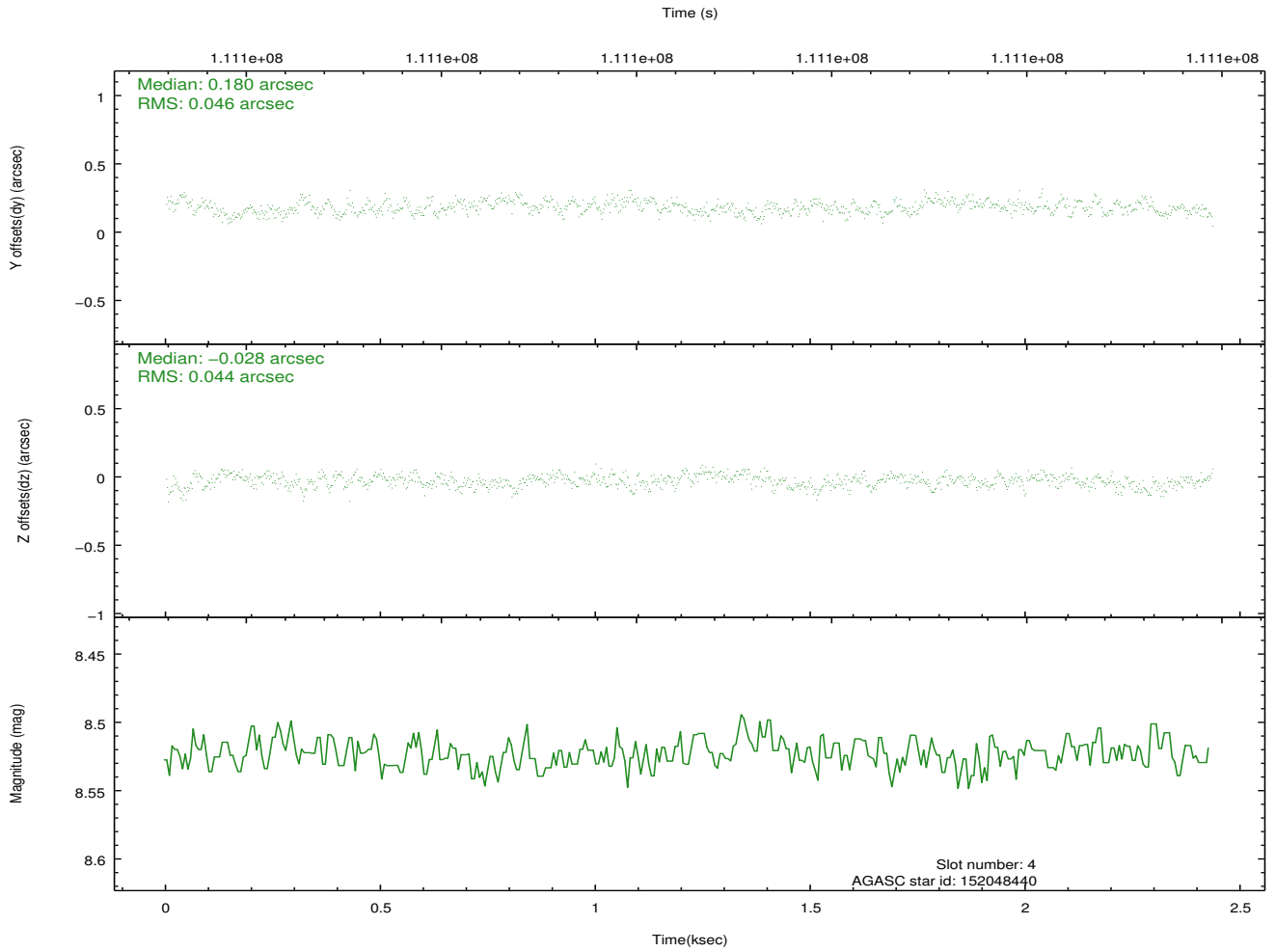
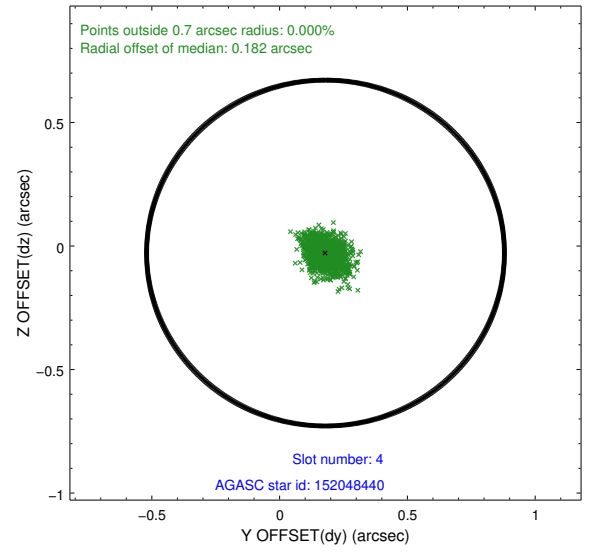
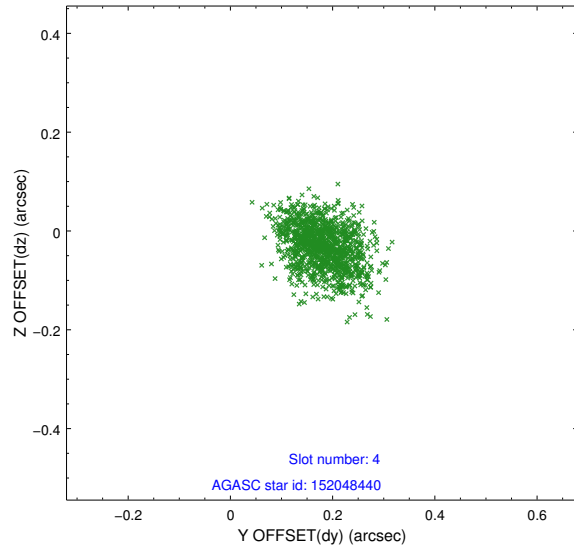


## 2.4 Star Slots

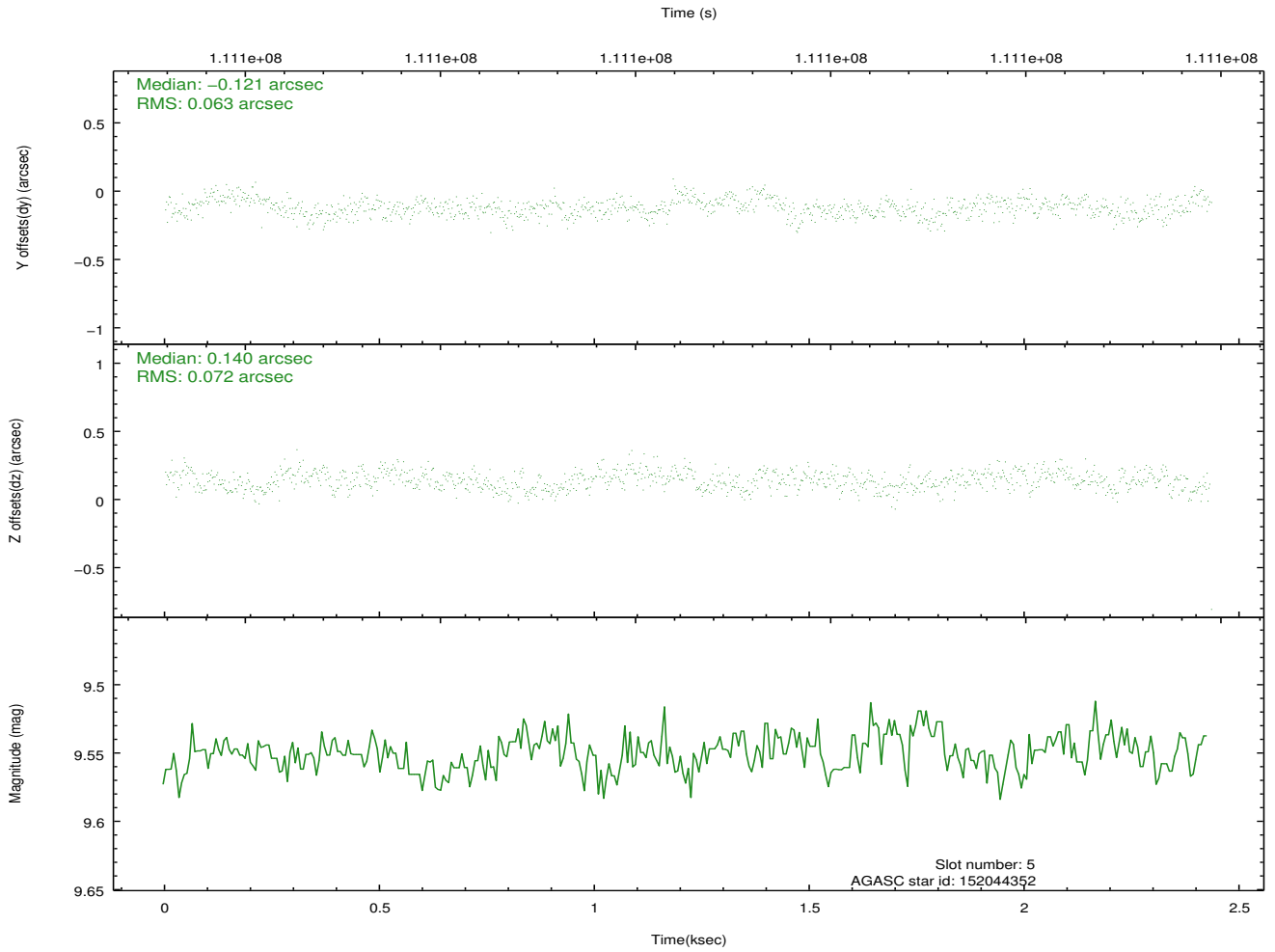
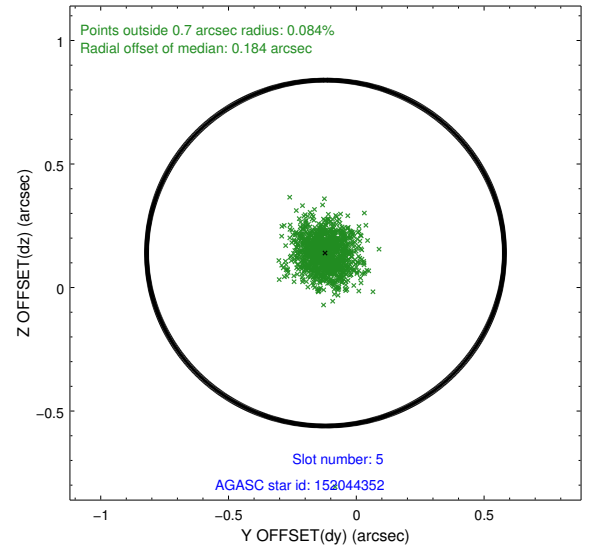
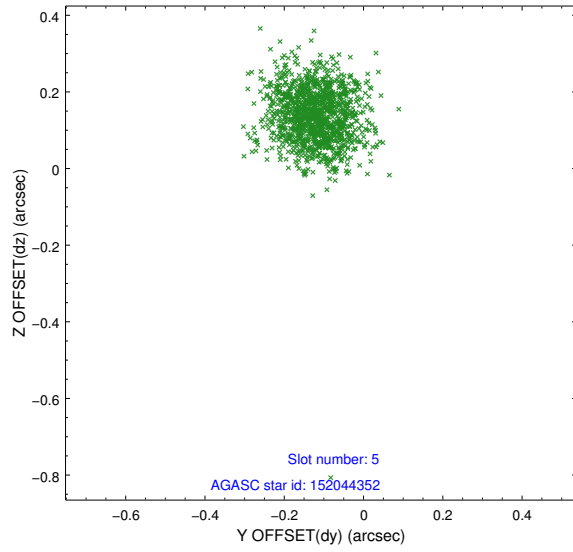
### 2.4.1 Slot 3



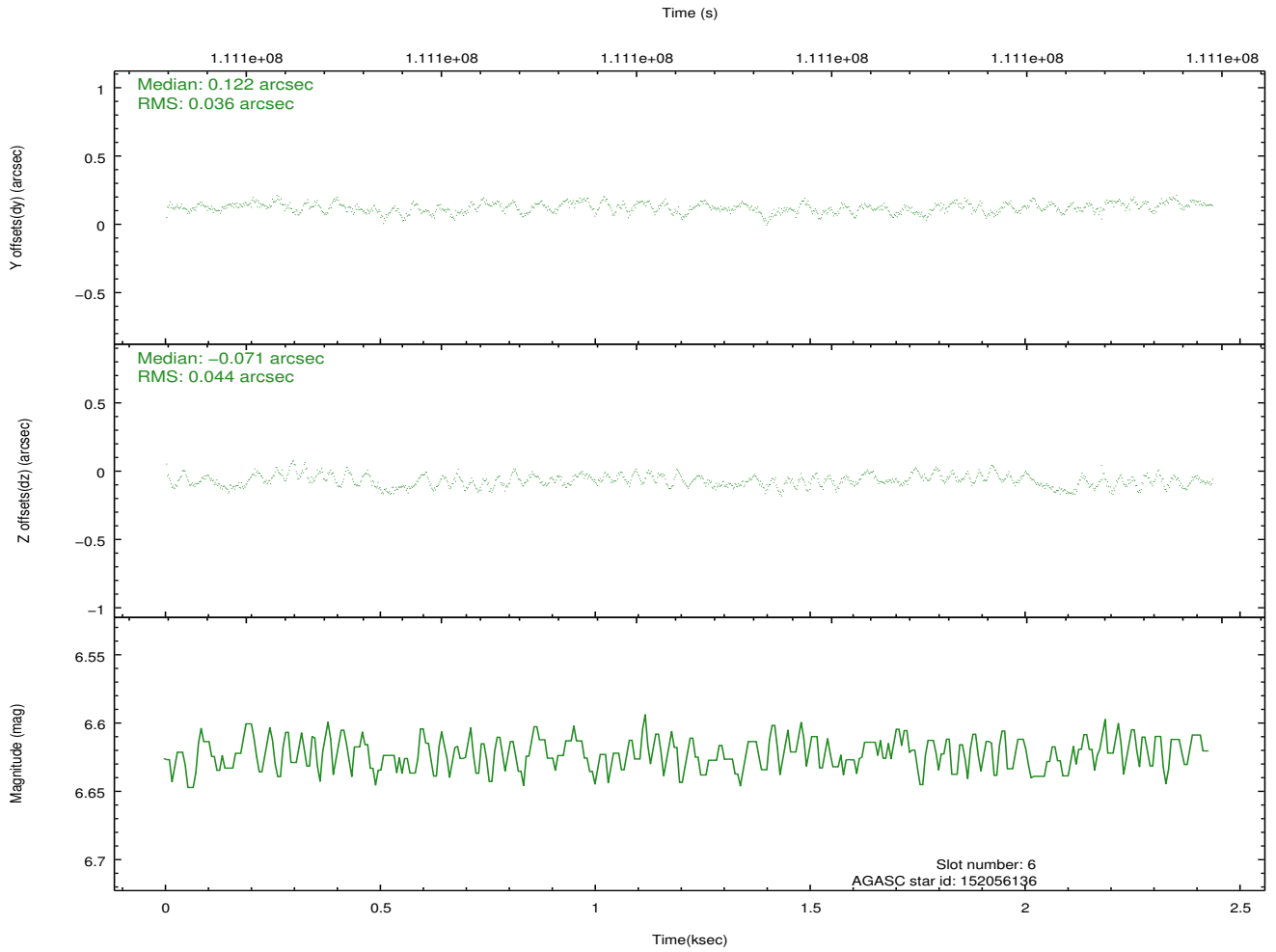
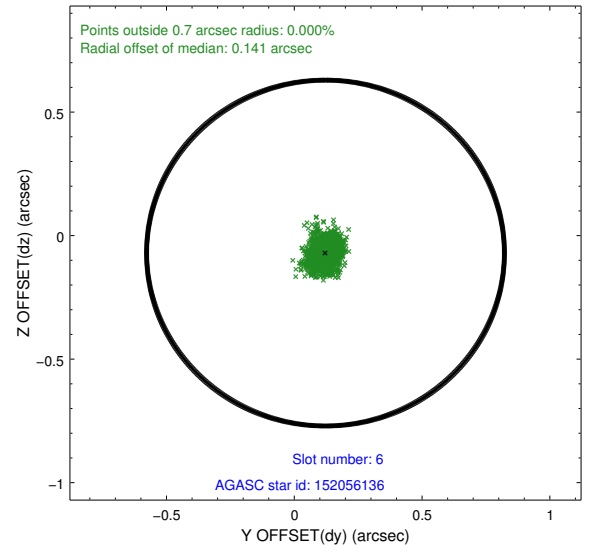
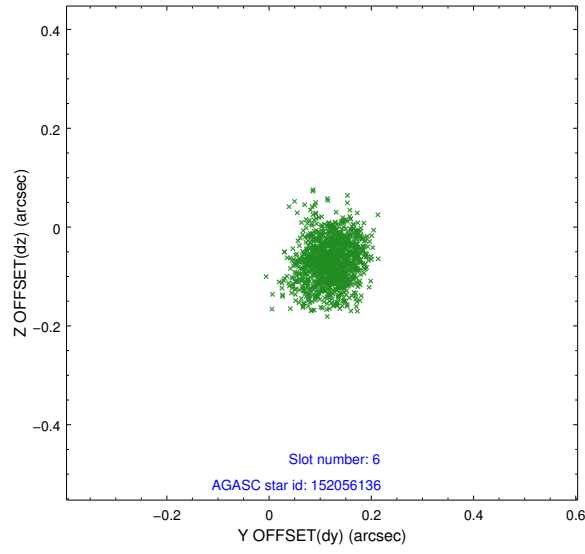
## 2.4.2 Slot 4



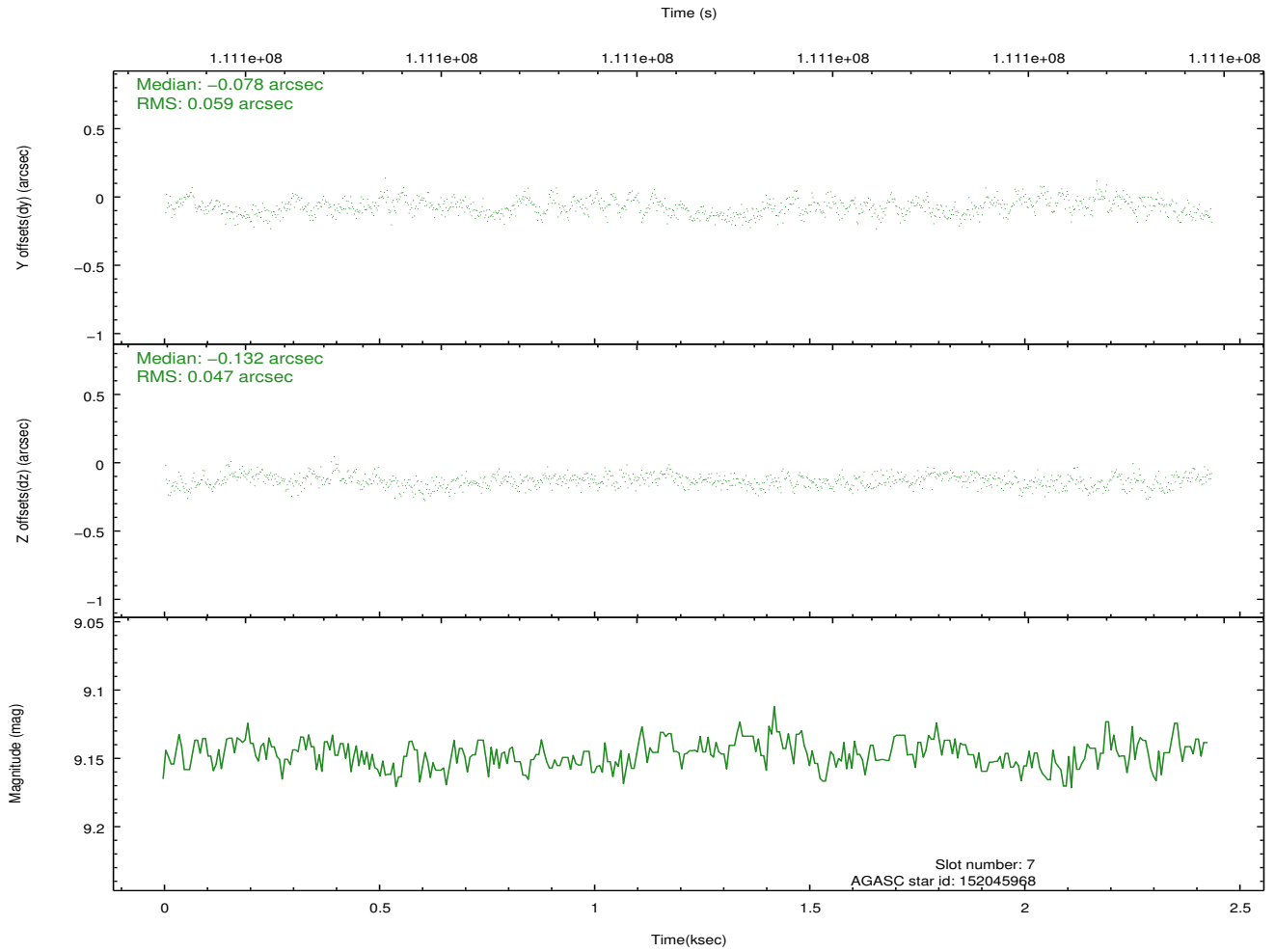
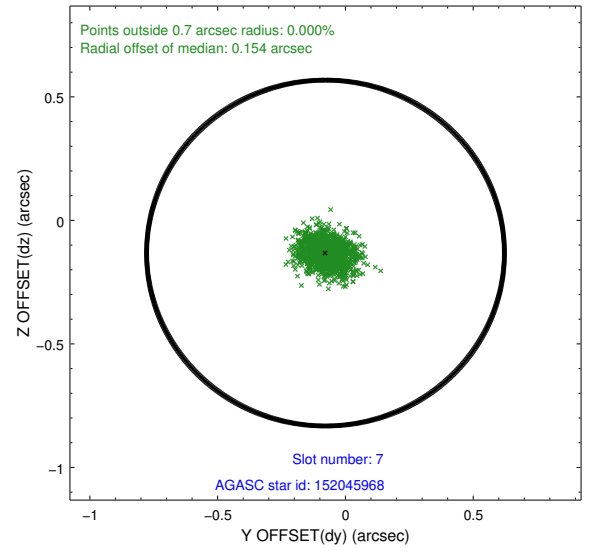
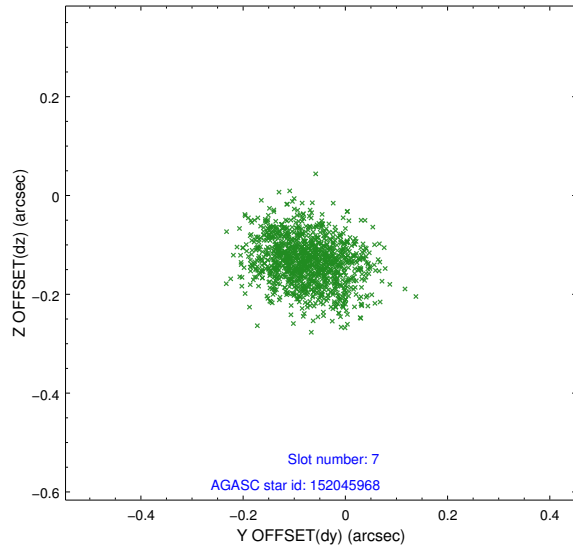
### 2.4.3 Slot 5



## 2.4.4 Slot 6

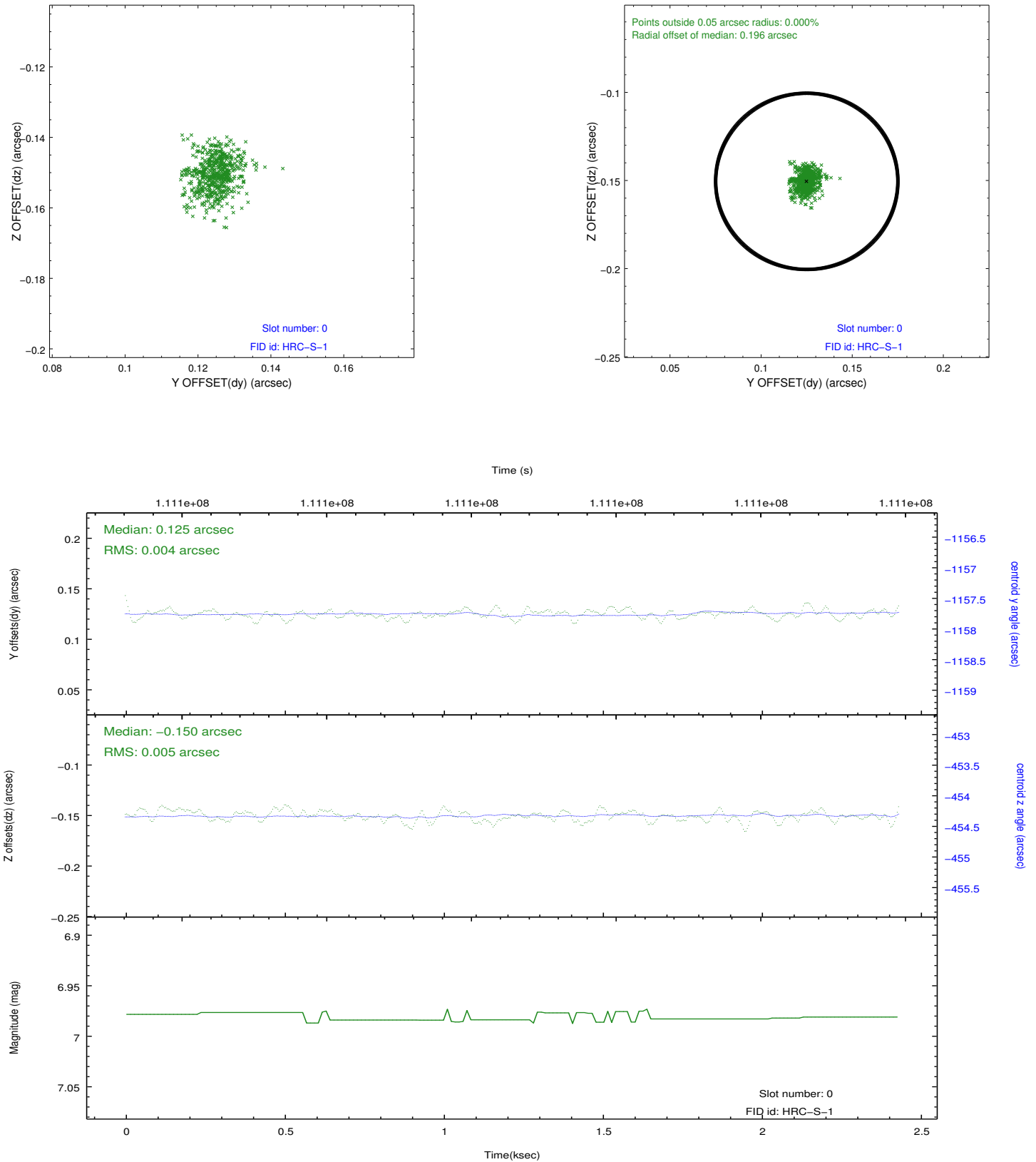


## 2.4.5 Slot 7

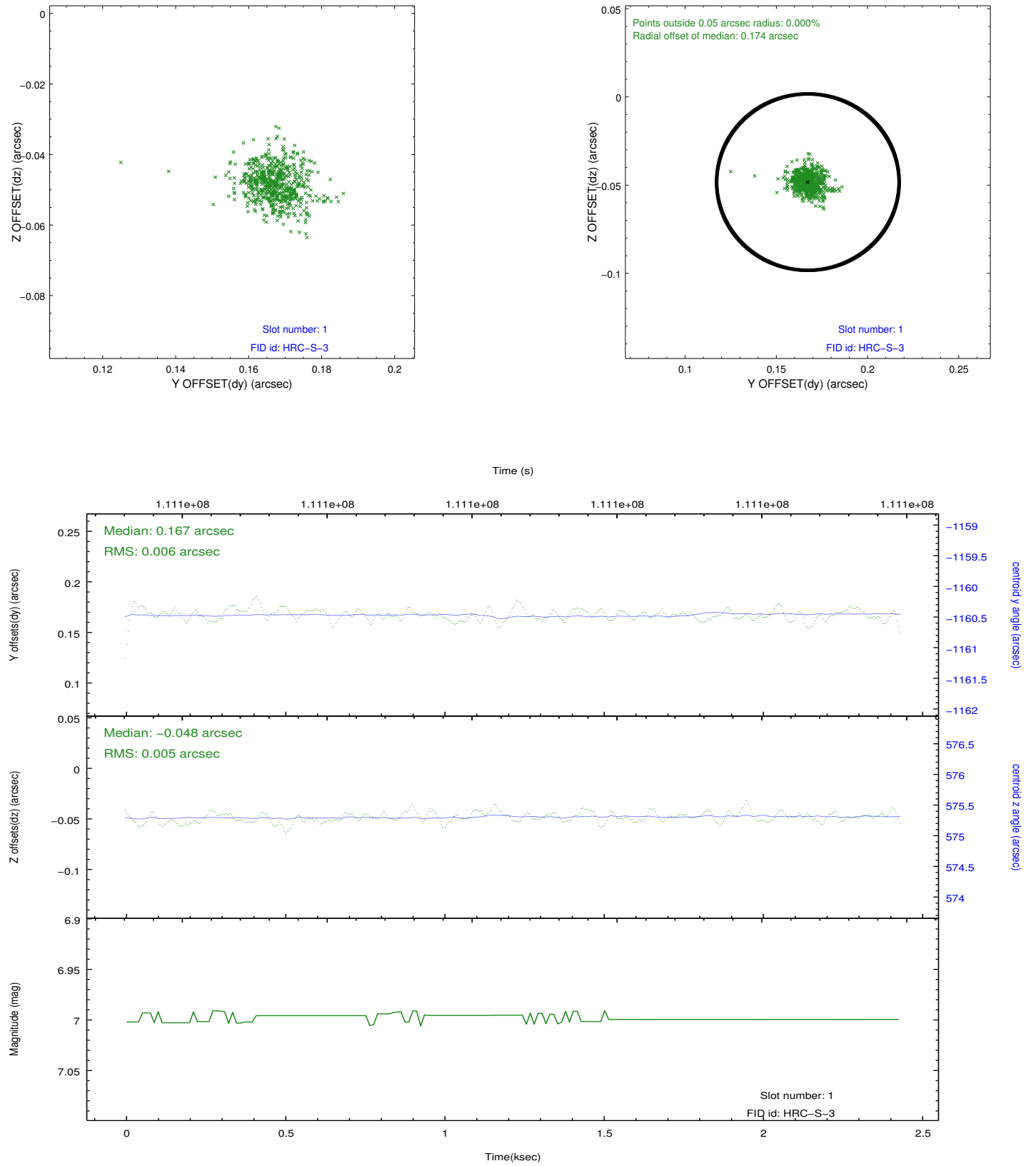


## 2.5 FID Slots

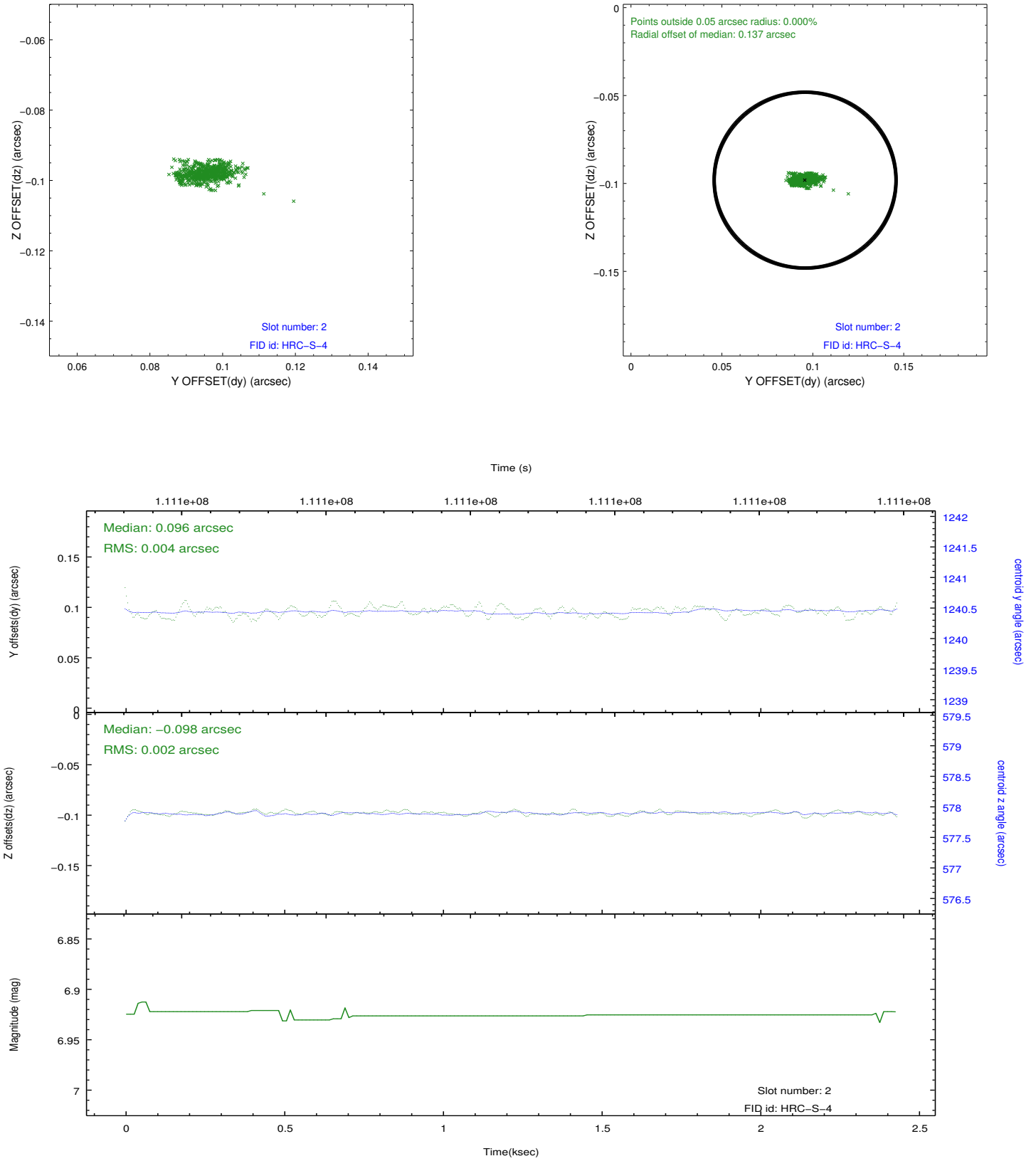
### 2.5.1 Slot 0



## 2.5.2 Slot 1



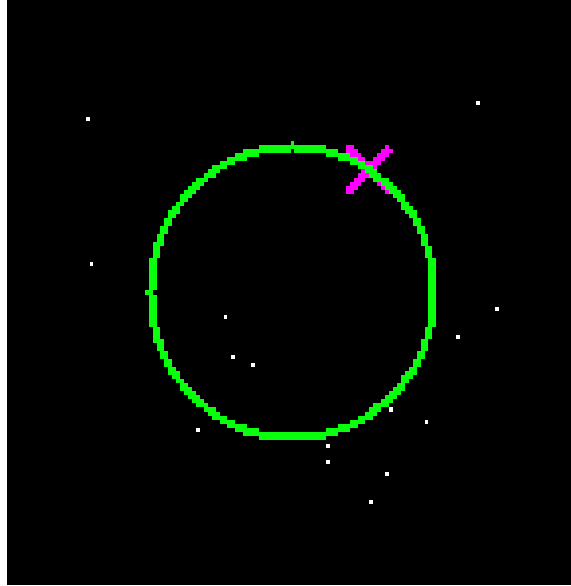
### 2.5.3 Slot 2



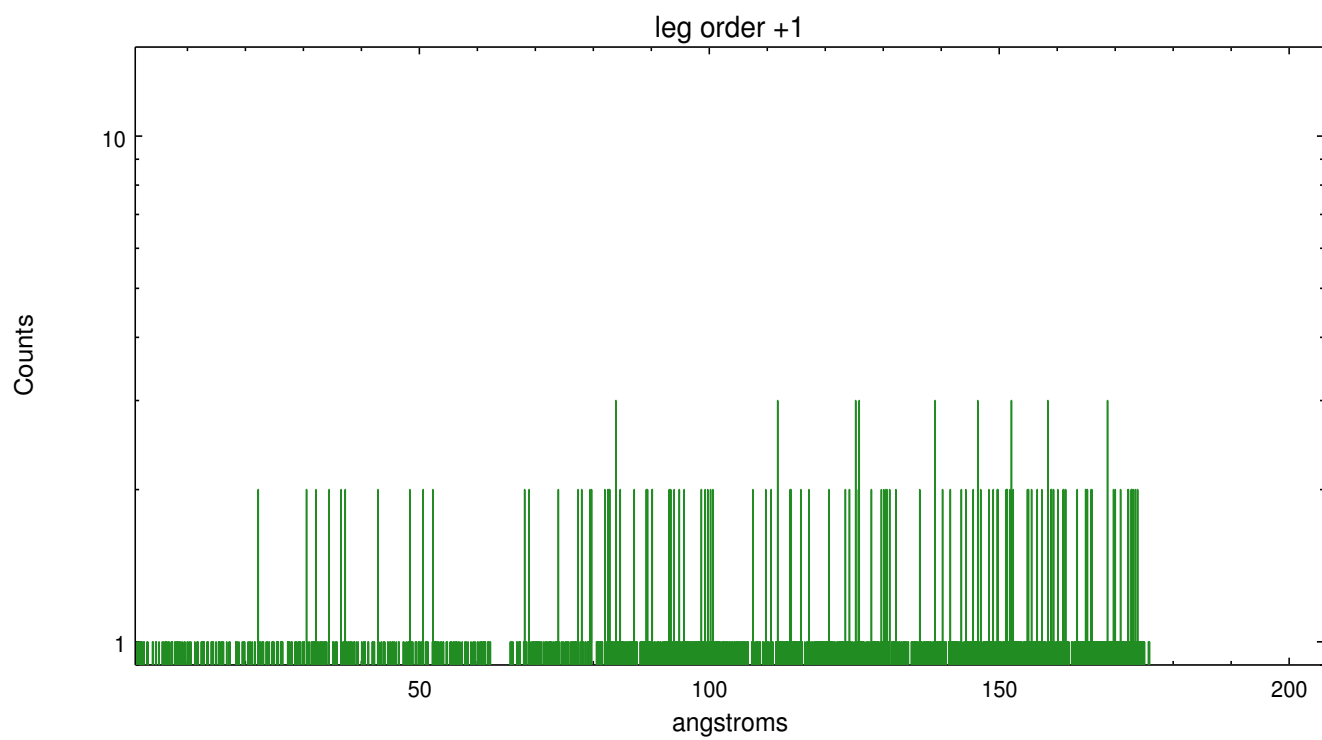
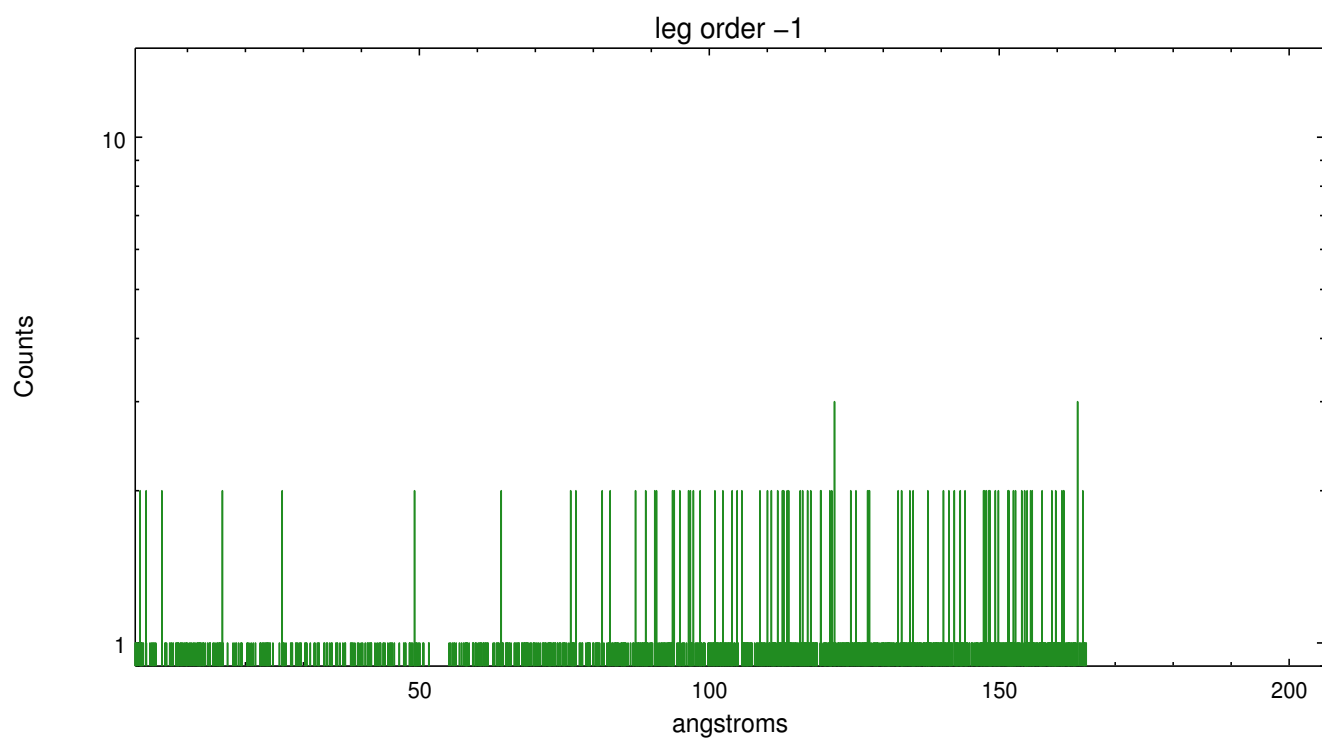


## 3 Gratings

### 3.1 LETG Arm



LETG Zero Order



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.10.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.4

## A.2 Comments

This is an observation of a moving target. Event positions are in the reference from of Chandra, not of the comet. Users should run a software tool such as `sso_freeze` to reposition the events in the reference from of the comet, then run normal data analysis tools such as `tgdetect` and spectral extraction.

===

Standard software processing technique using the tool `tgdetect` failed to determine an accurate position for the zeroth order for this observation. The target is moving through the field of view during the observation. The processing software defaulted to the coordinates supplied by the user for the position of the zeroth order for the grating spectral extraction. Spectra products from this processing, which does not include `sso_freeze`, are not useful.

===

Charge time for this `ObsId` remains at previous value of 2.4 ks, although with the current processing the charge time would be 2.395 ks.