

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 1826 - L2 Version 3  
Chandra X-Ray Center

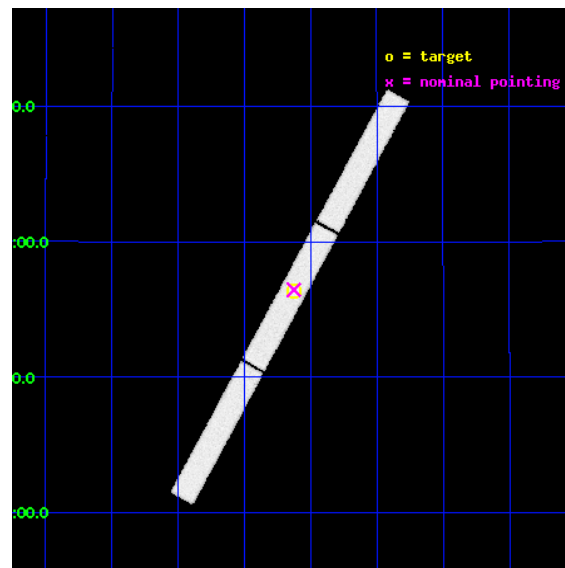
L2 Processing Date : Sep 20 2012

## 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

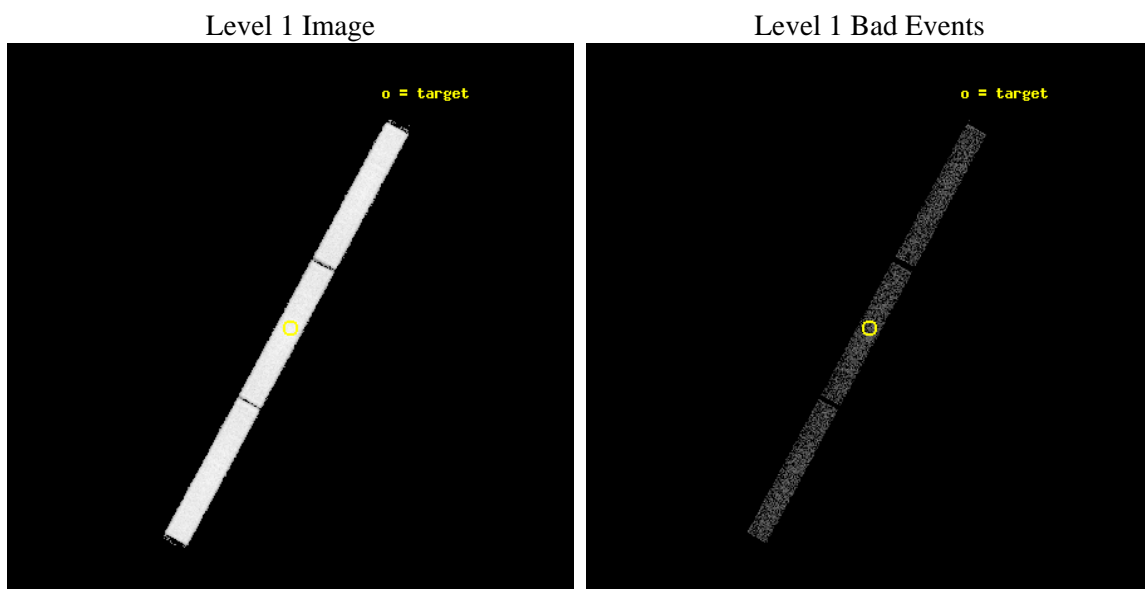
seq_num	100008	Sequence number
obs_id	1826	Observation id
title	SOLVING THE PUZZLE OF COMETARY X-RAY ORIGIN: OBSERVATIONS OF COMET 10P/TEMPEL 2	Proposal title
observer	DR W. THOMAS VESTRAND	Principal investigator
object	LINEAR 2001 A2	Source name
ra_targ	349.064987	Observer's specified target RA [deg]
dec_targ	7.8185	Observer's specified target Dec [deg]
ra_nom	349.06286594798	Nominal RA [deg]
dec_nom	7.8228460413015	Nominal Dec [deg]
roll_nom	118.48723785905	Nominal Roll [deg]
revision	3	Processing version of data
ontime	2193.7563358247	[s]
livetime	2178.5771704983	Ontime multiplied by DTCOR
l2events	140561	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	2050.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	2193.7563358247	[s]
caldbver	4.5.1.1	&#160	l1events	227668	Number of level 1 events
date	2012-09-20T12:58:37	Date and time of file creation			
revision	3	Processing version of data			

### 2.1.3 Events

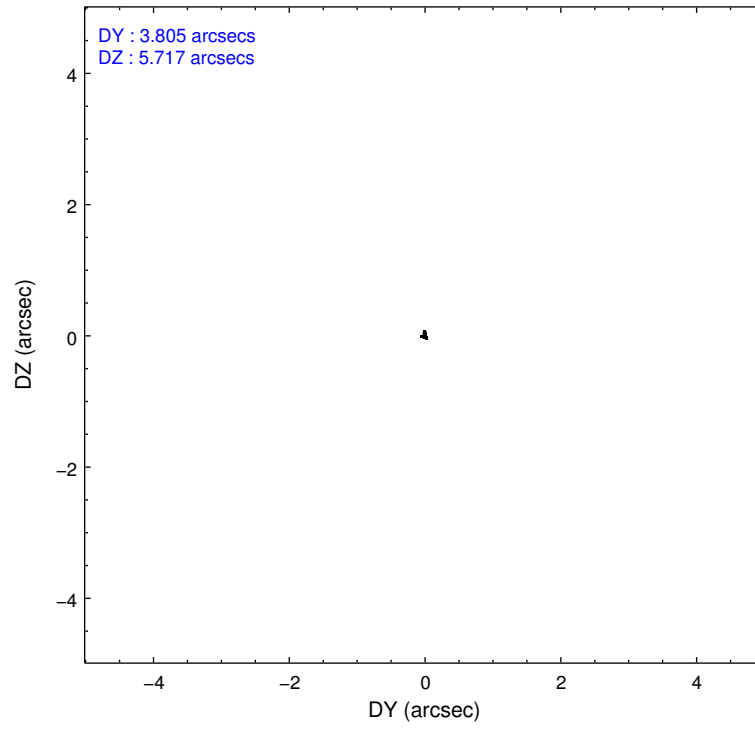
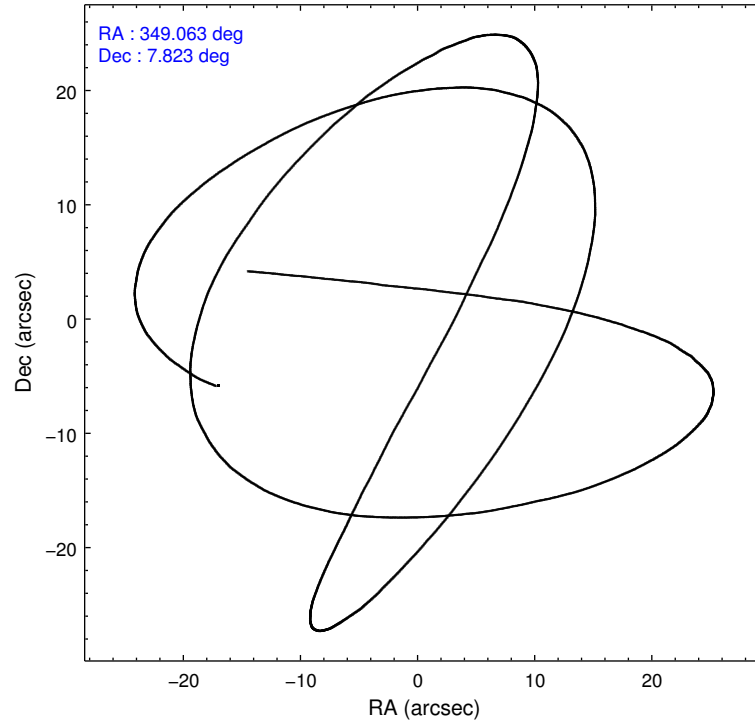
Level 1 Events

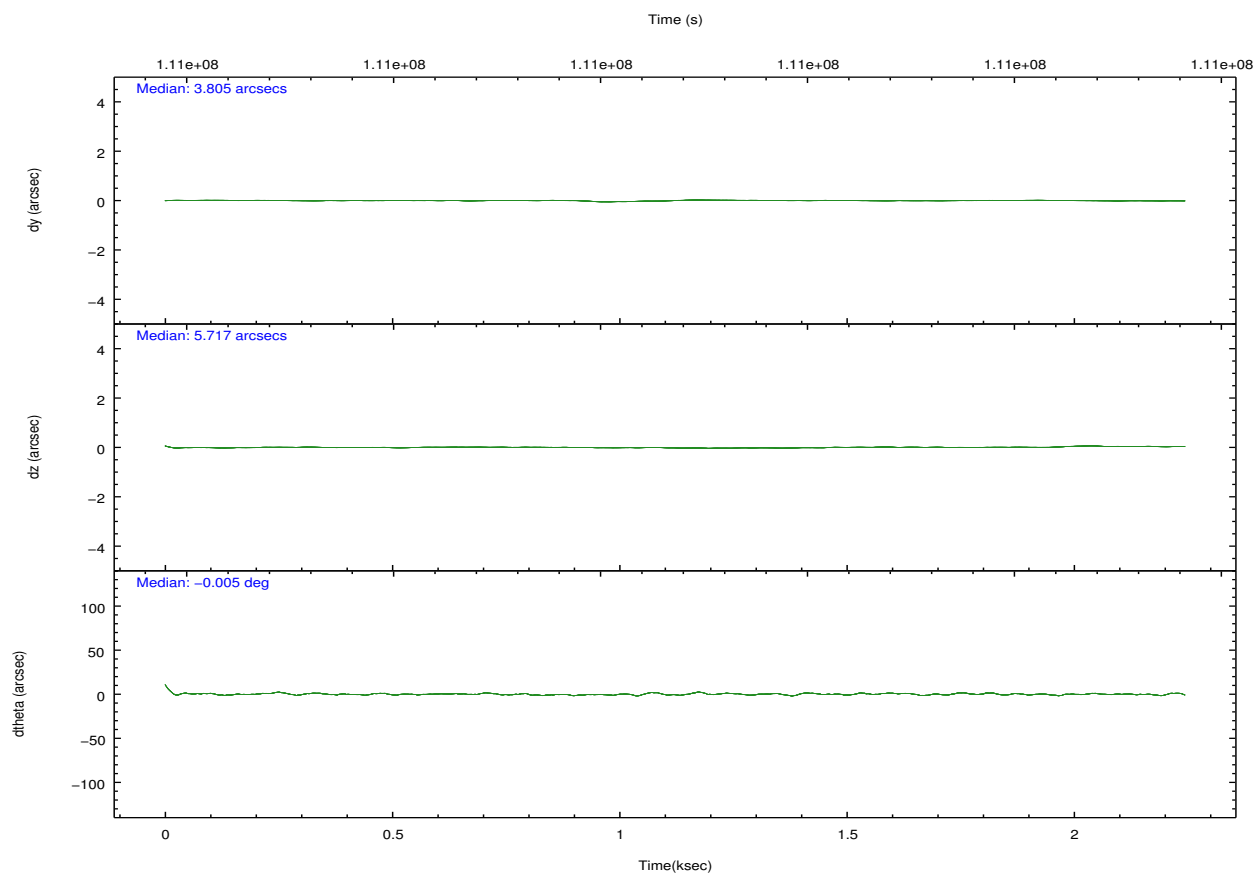
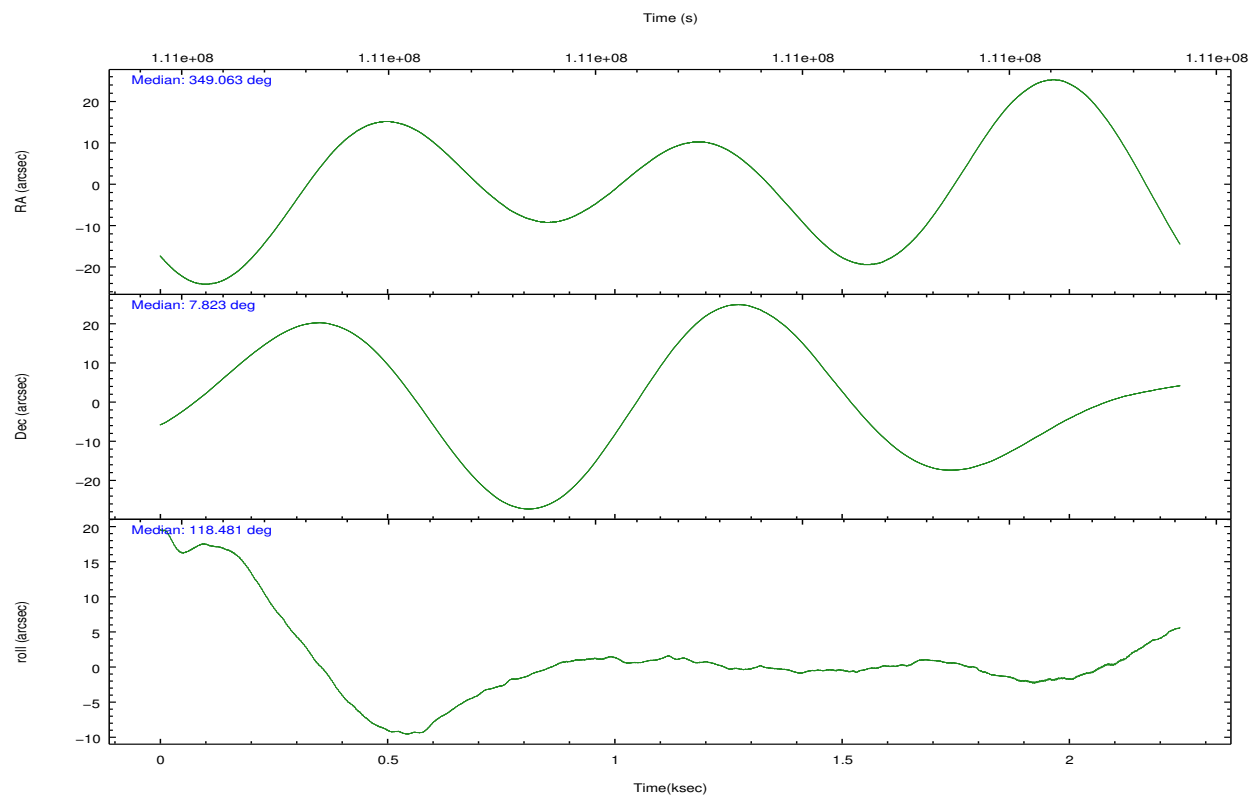
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	76023	75171	76474
rejected events	11142	10938	10987
rejected %	14%	14%	14%

## 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	349.088187	349.0628659479802			
[deg] Pointing Dec	7.808954	7.822846041301534			
[deg] Pointing Roll	118.416454	118.4872378590491			
[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)	110999754.184000	110999377.70772			
Observation start date	2001-07-08T17:14:50	2001-07-08T17:09:37			
[s] Observation end time (MET)	111001804.184000	111001962.24533			
Observation end date	2001-07-08T17:49:00	2001-07-08T17:52:42			

## 2.3 Aspect





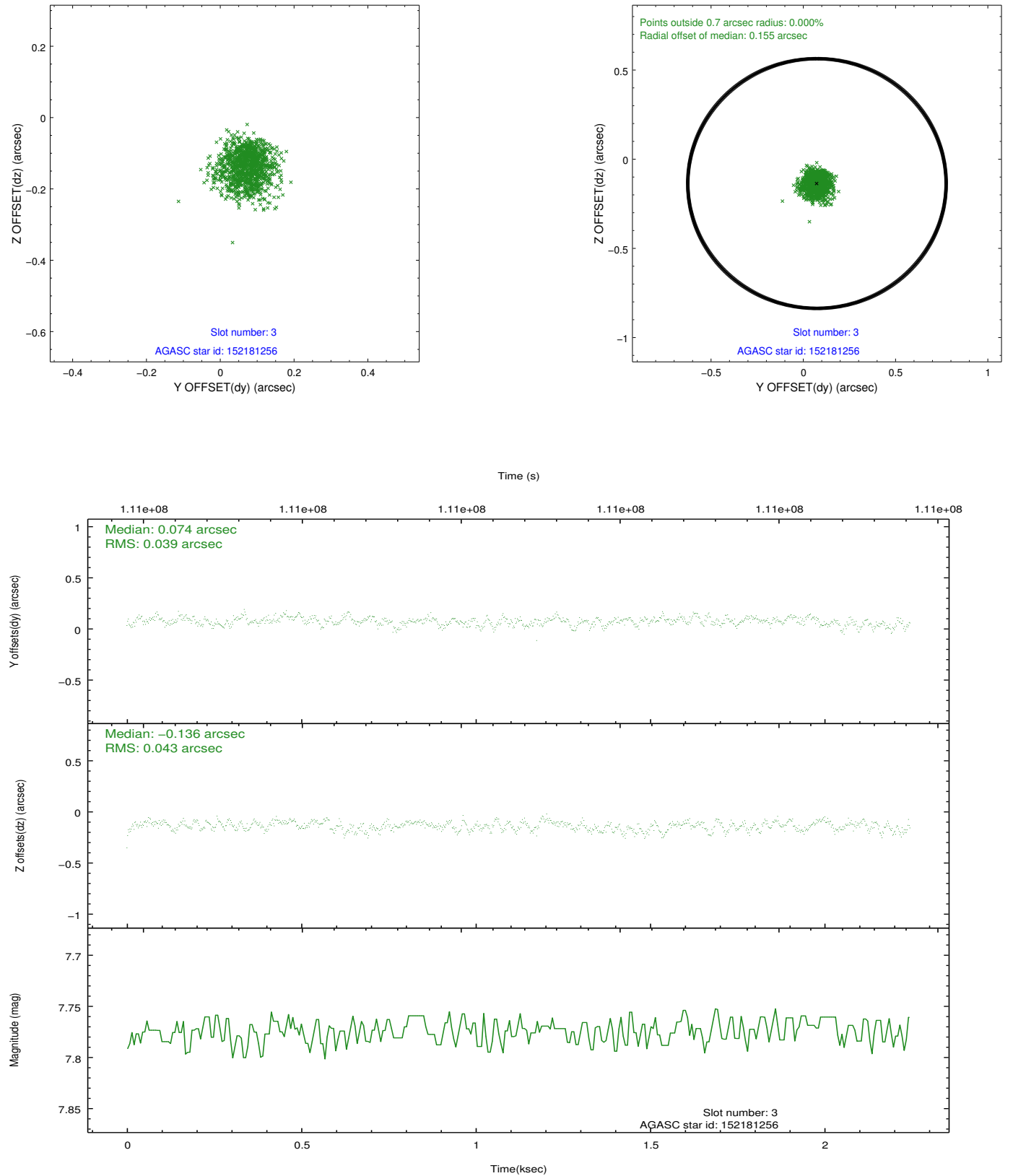
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-S-1	7.00	548	0.129	-0.163	0.006	0.010	0.000000	0.000000	-1157.86	-454.32
1	FID	HRC-S-3	7.02	548	0.169	-0.035	0.007	0.011	0.000000	0.000000	-1162.69	574.51
2	FID	HRC-S-4	6.94	548	0.091	-0.100	0.004	0.009	0.000000	0.000000	1238.21	578.97
3	GUIDE	152181256	7.77	1096	0.074	-0.136	0.062	0.099	349.141958	7.580367	-815.87	222.61
4	GUIDE	152180776	8.42	1096	0.122	0.123	0.071	0.114	349.576658	7.835091	-746.70	-1577.27
5	GUIDE	152180360	8.59	1096	-0.020	0.053	0.060	0.099	349.110181	8.037159	683.72	-461.24
6	GUIDE	152187192	8.90	1095	-0.084	0.106	0.071	0.123	349.378103	8.213055	788.09	-1601.26
7	GUIDE	152188480	8.94	1094	-0.091	-0.139	0.069	0.113	348.517103	8.131940	1992.11	1234.70

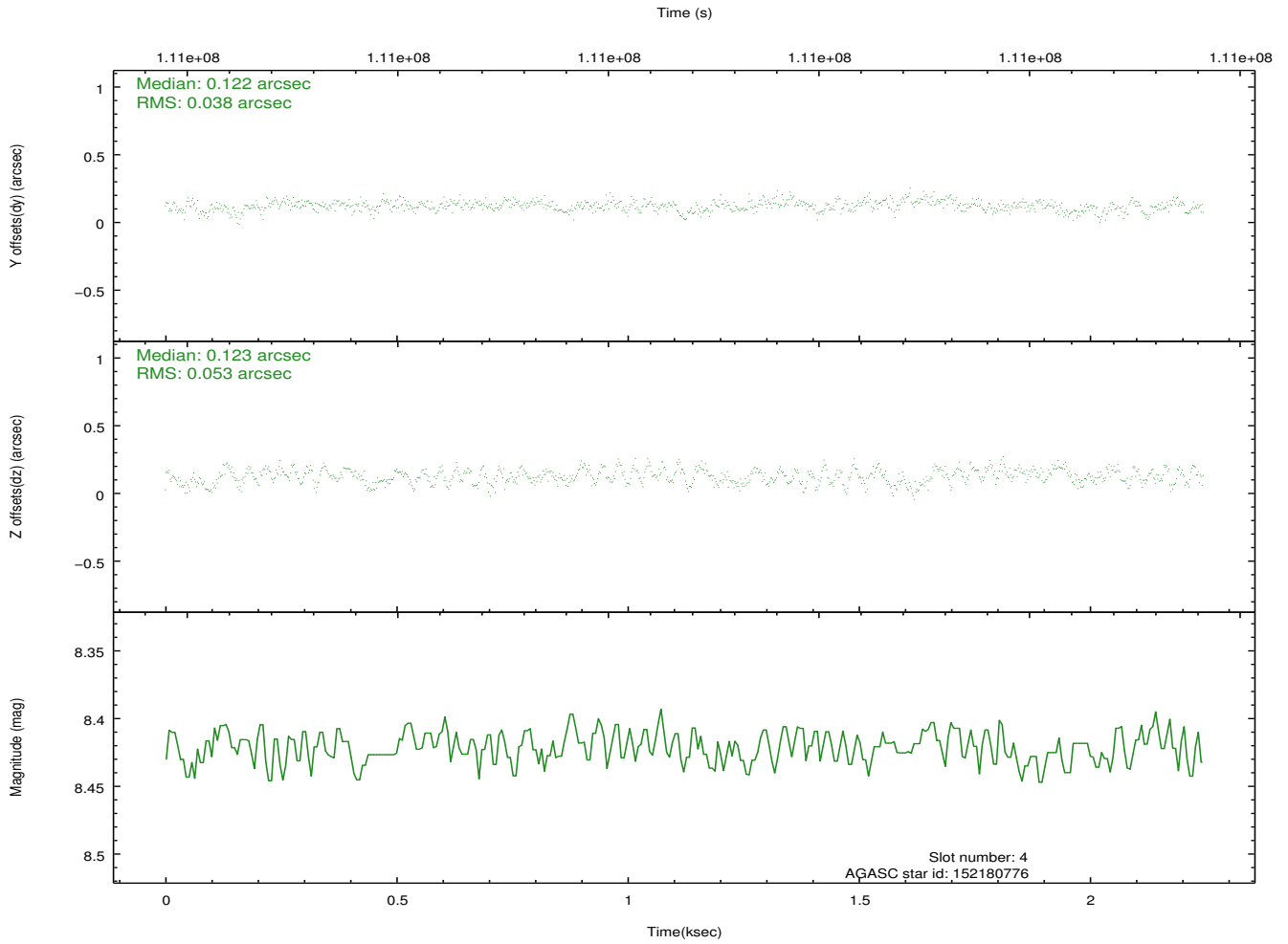
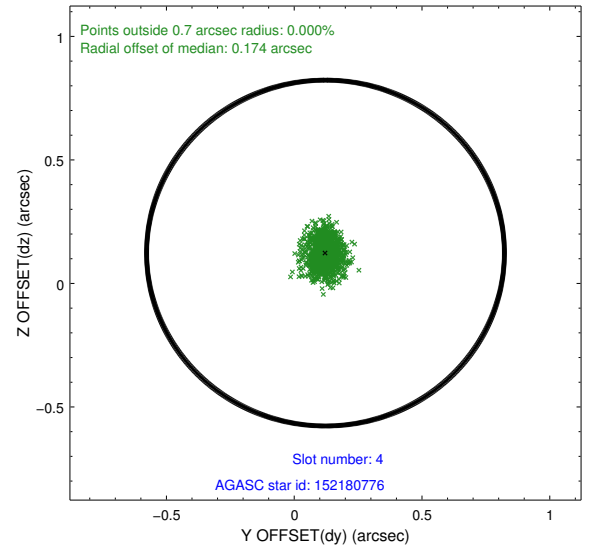
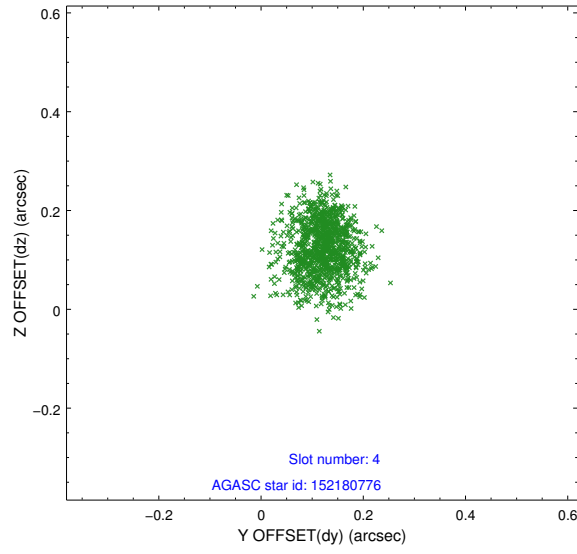


## 2.4 Star Slots

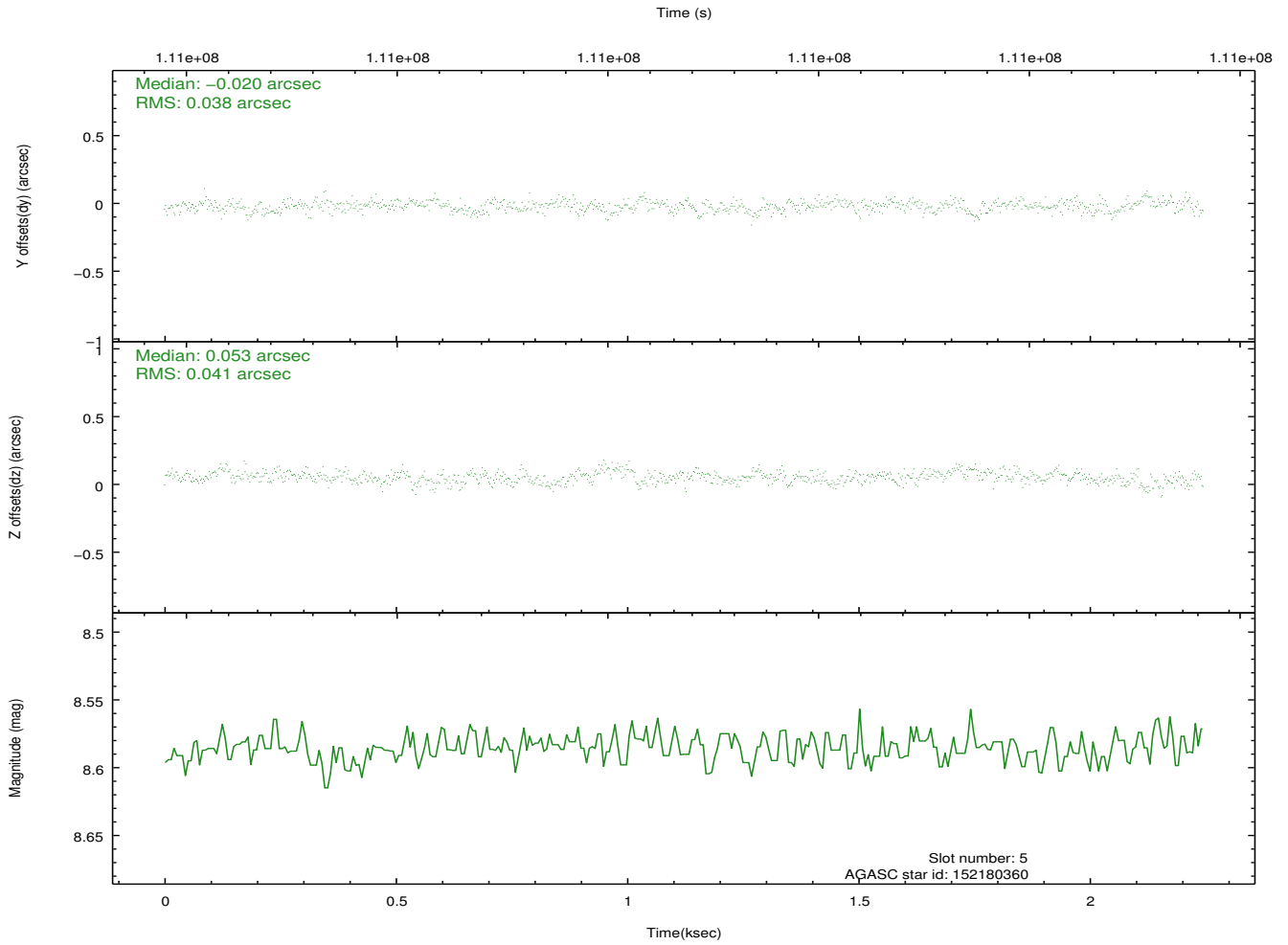
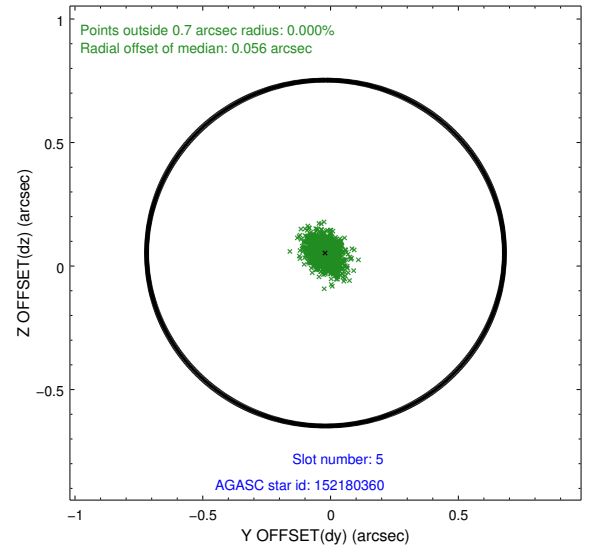
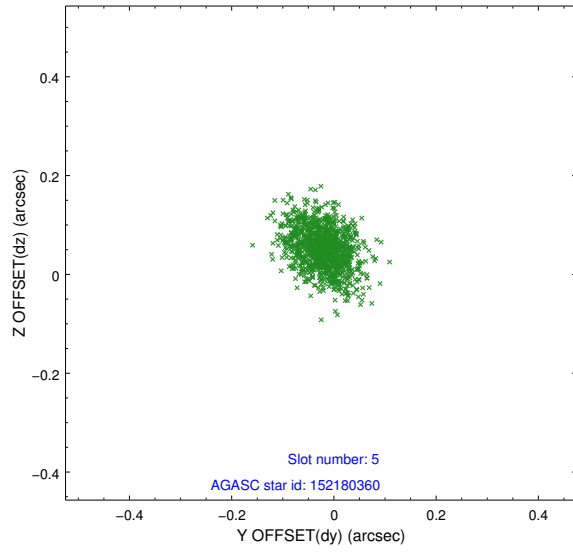
### 2.4.1 Slot 3



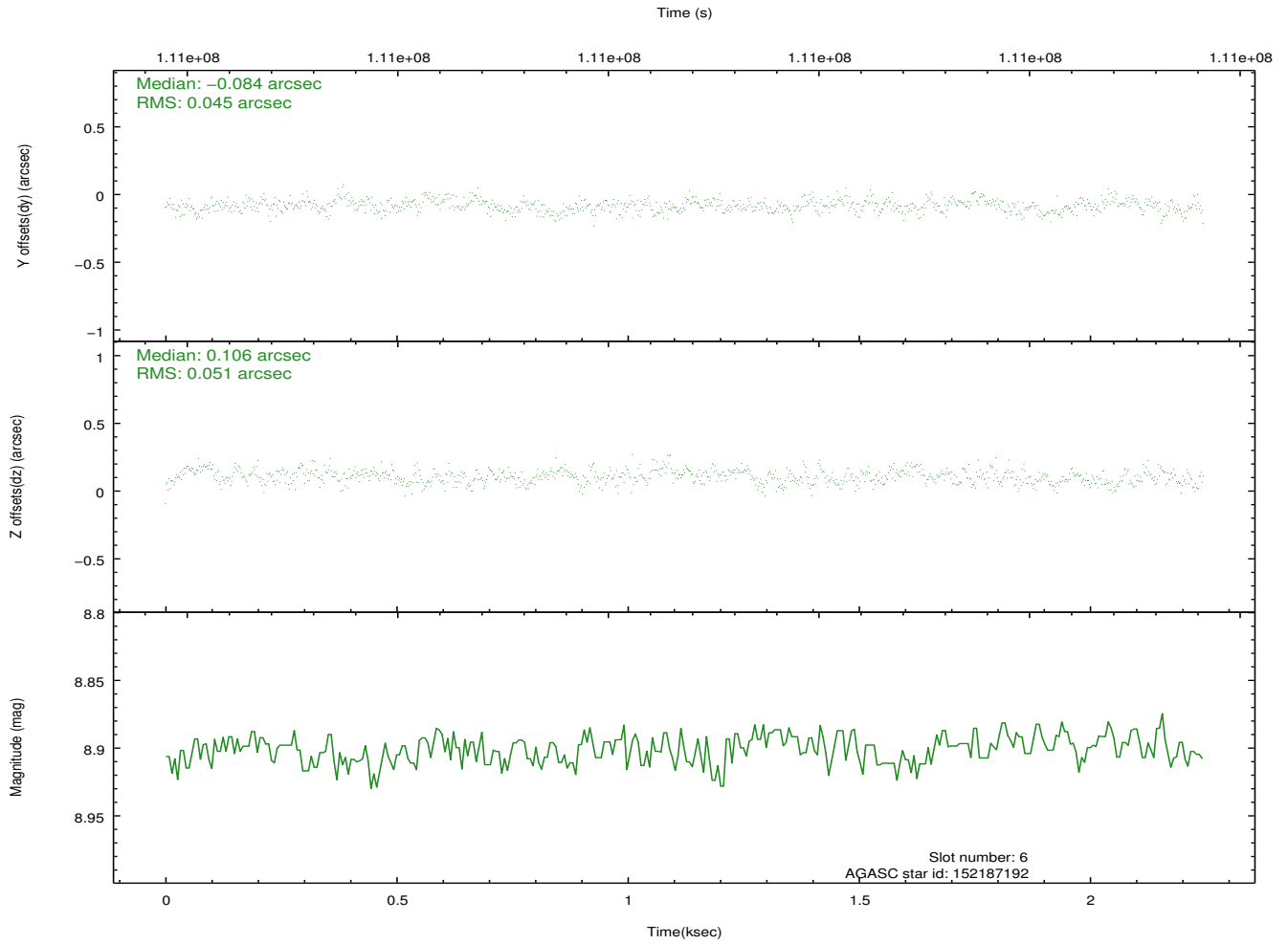
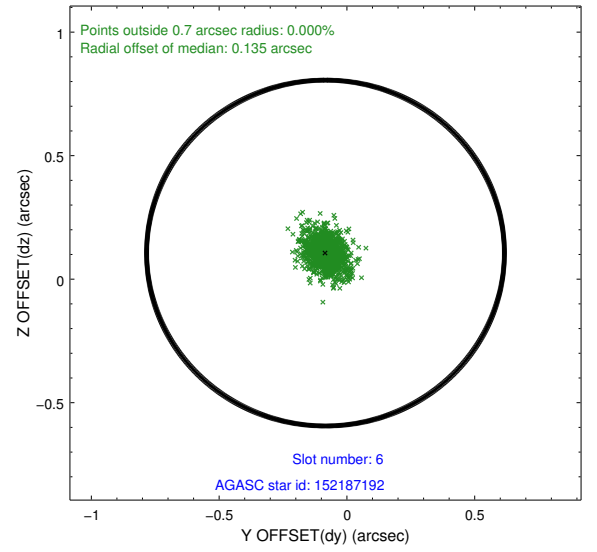
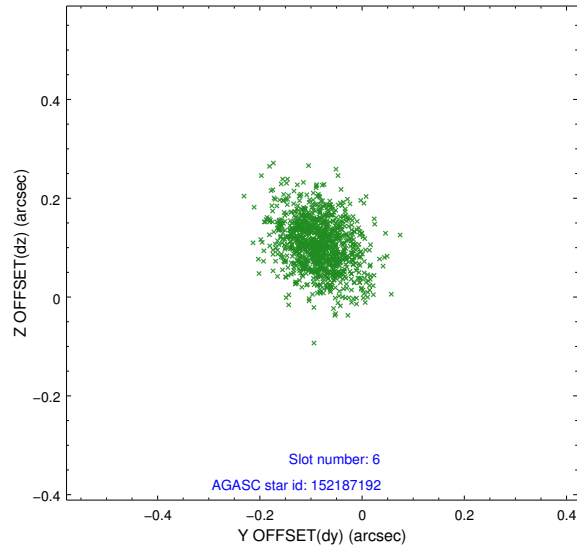
## 2.4.2 Slot 4



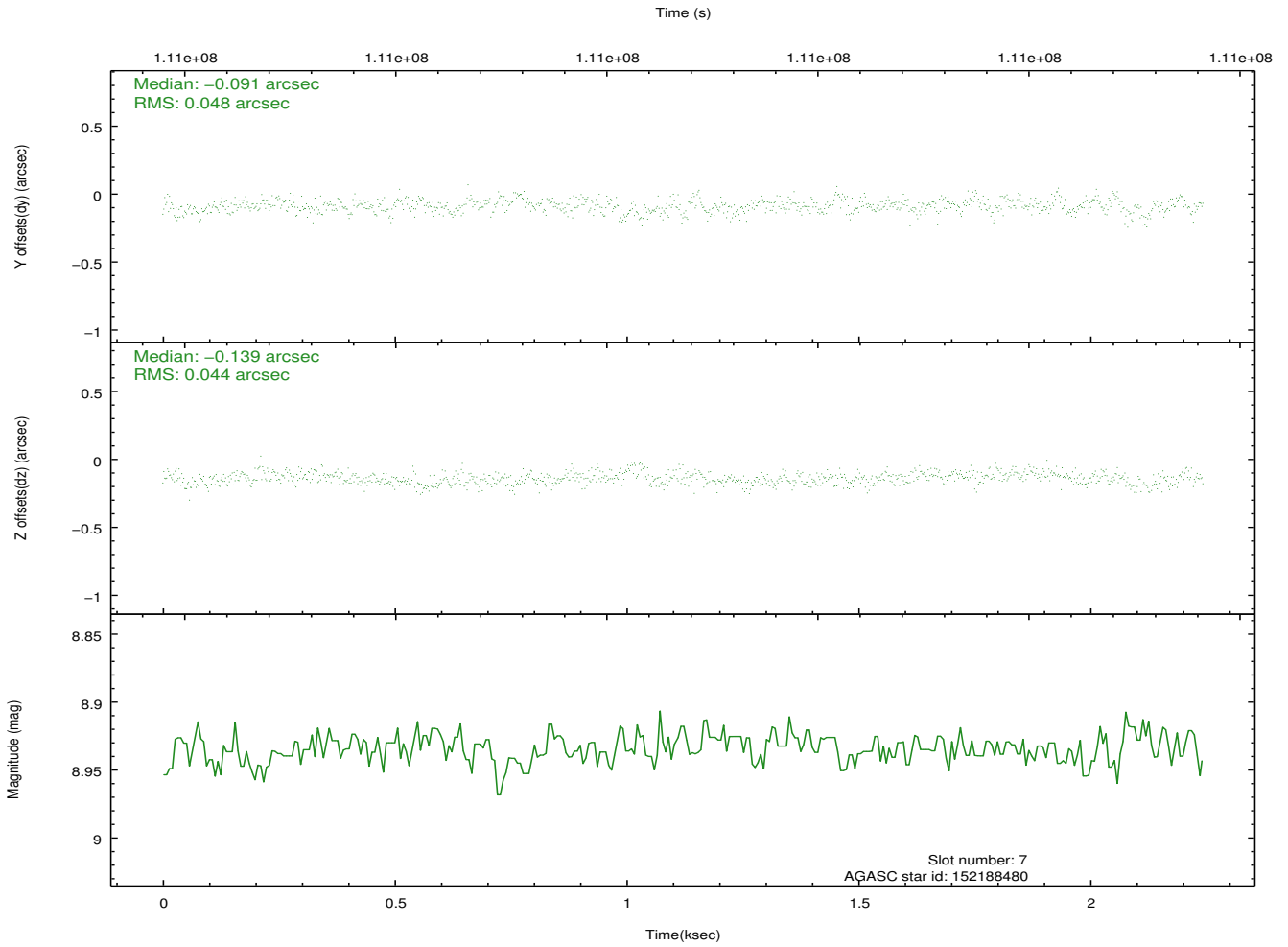
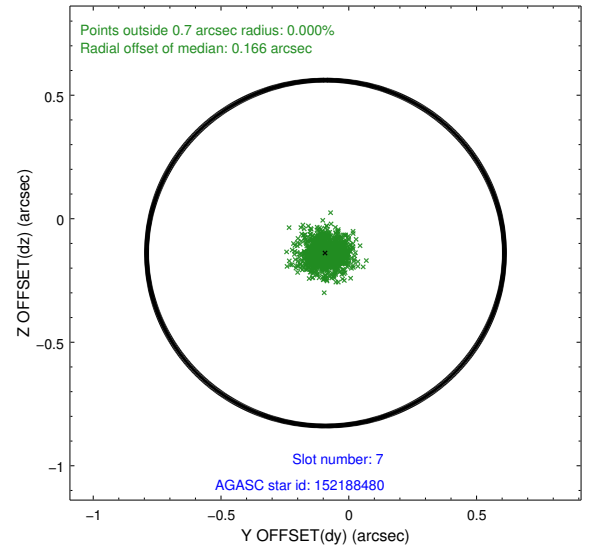
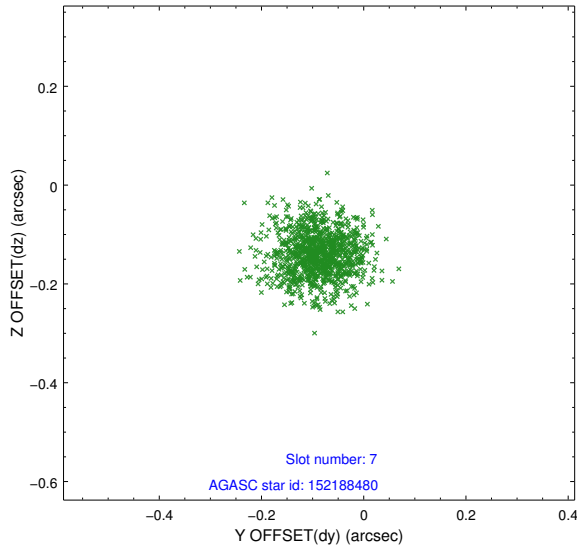
### 2.4.3 Slot 5



## 2.4.4 Slot 6

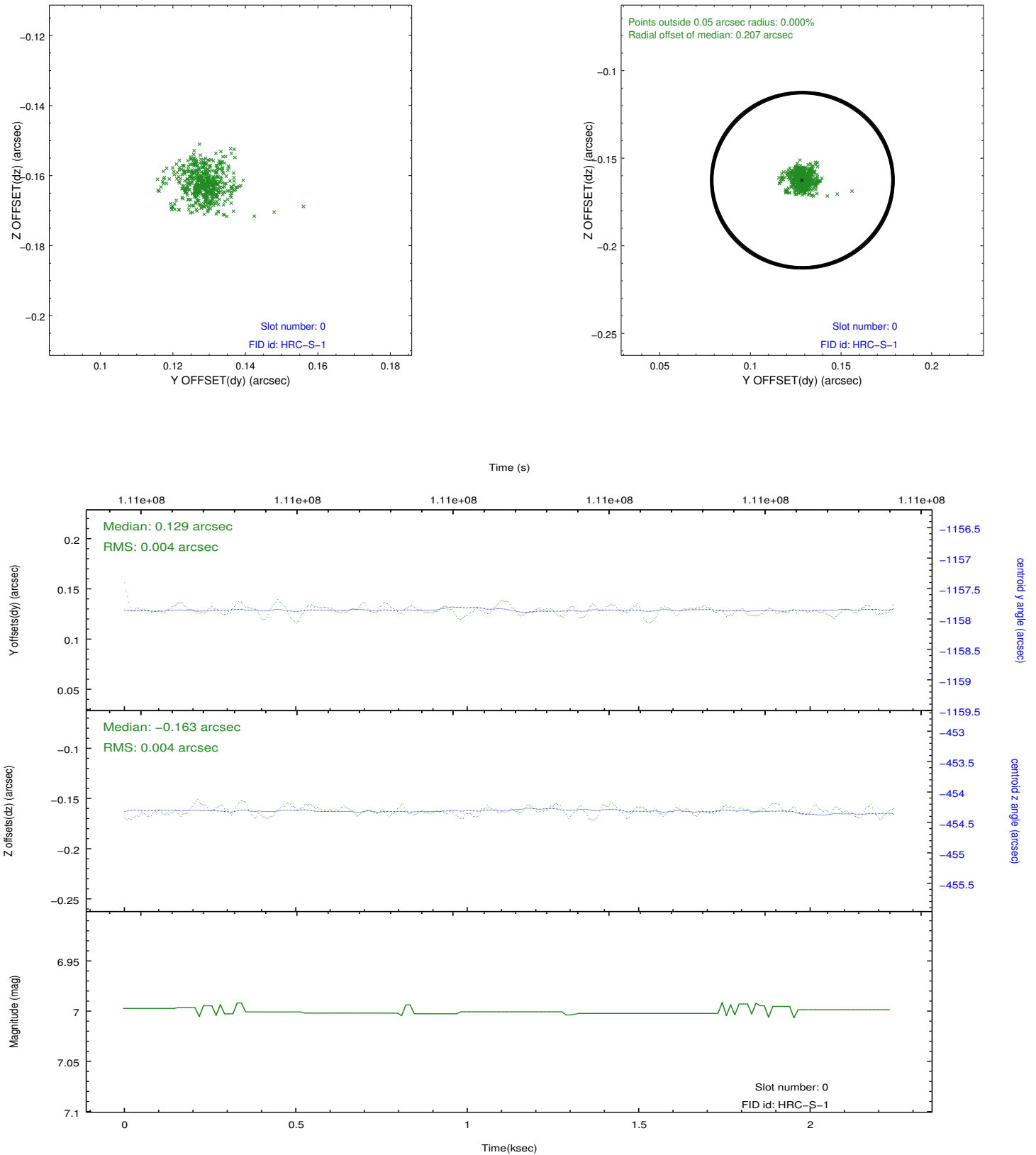


## 2.4.5 Slot 7

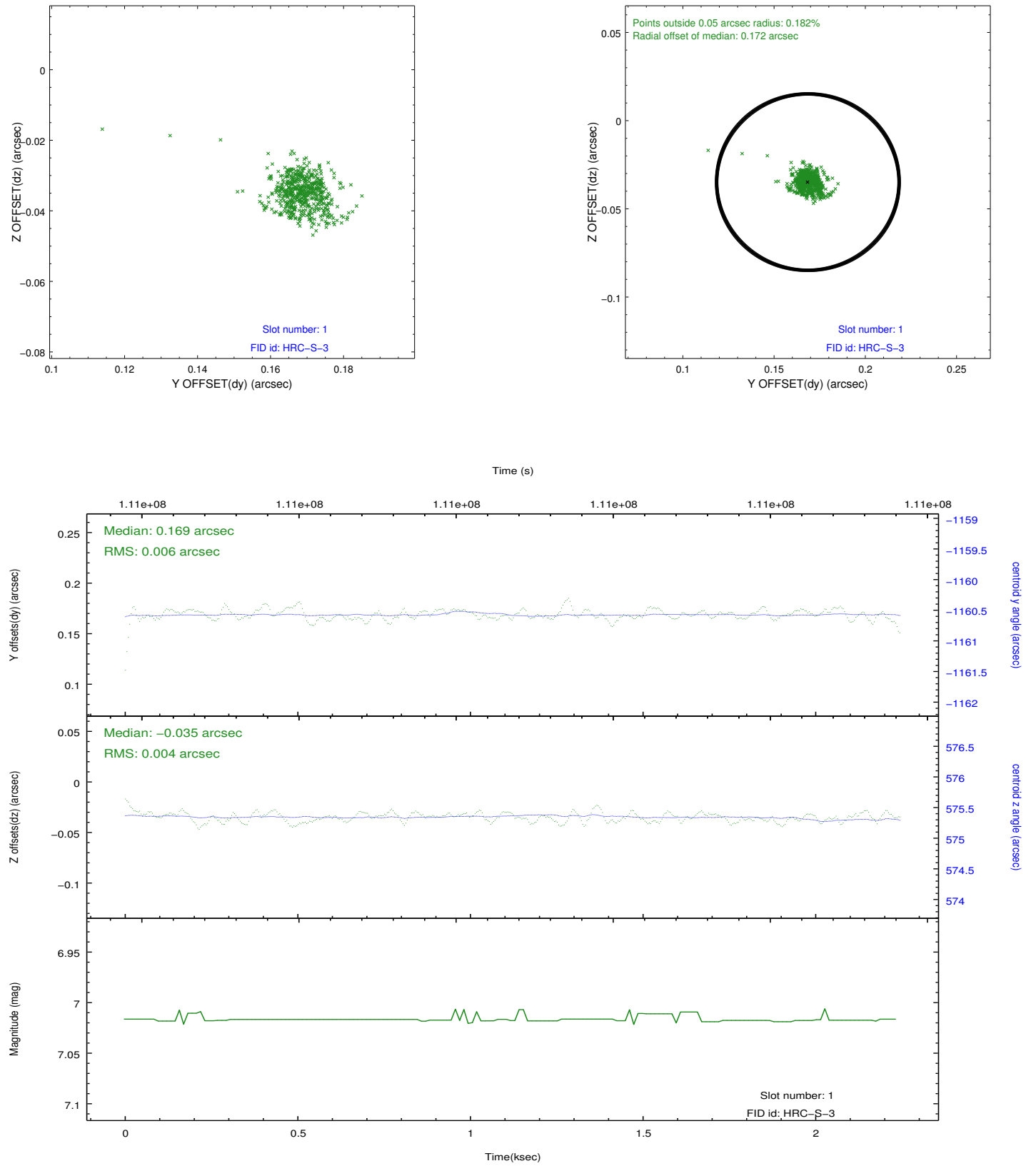


## 2.5 FID Slots

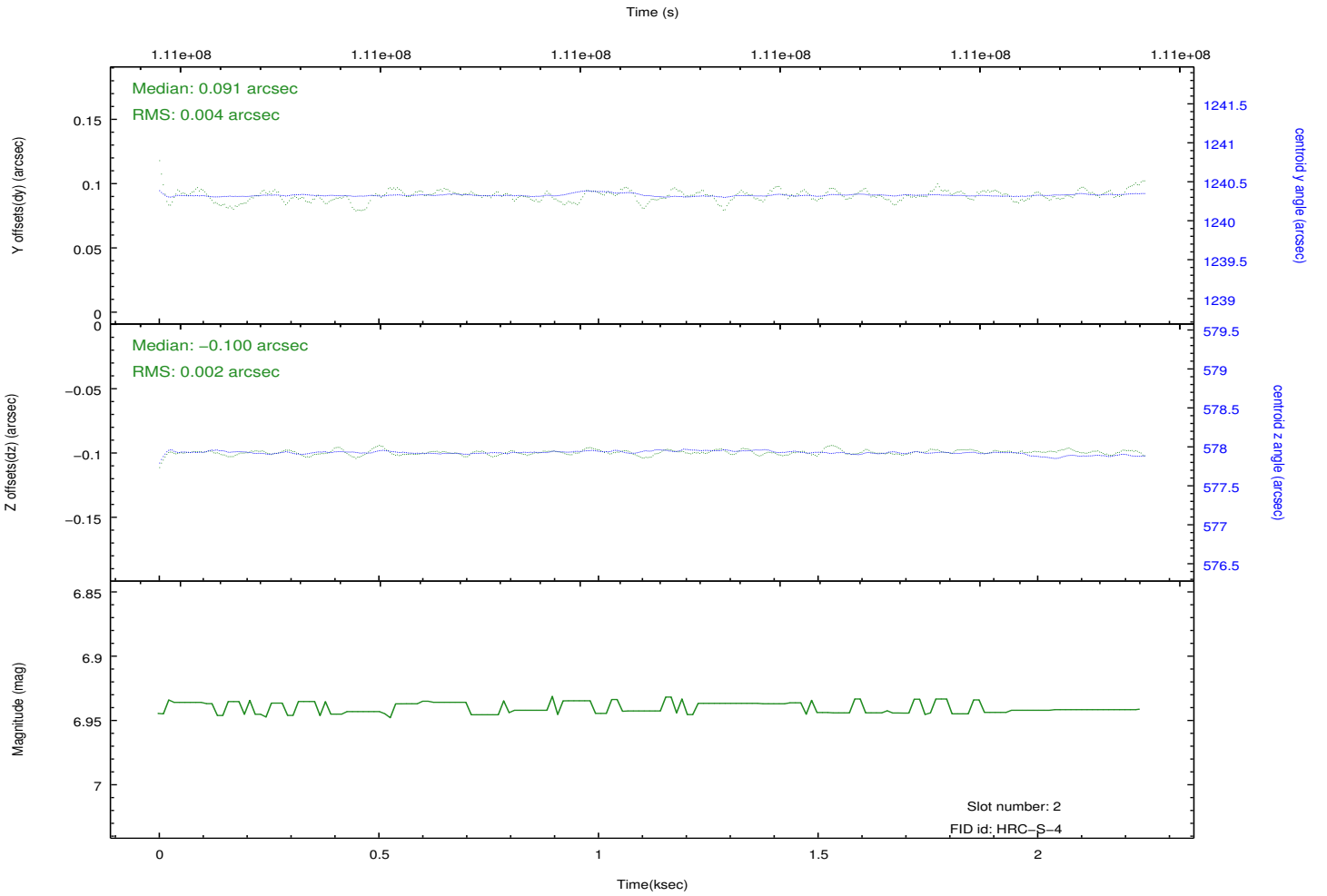
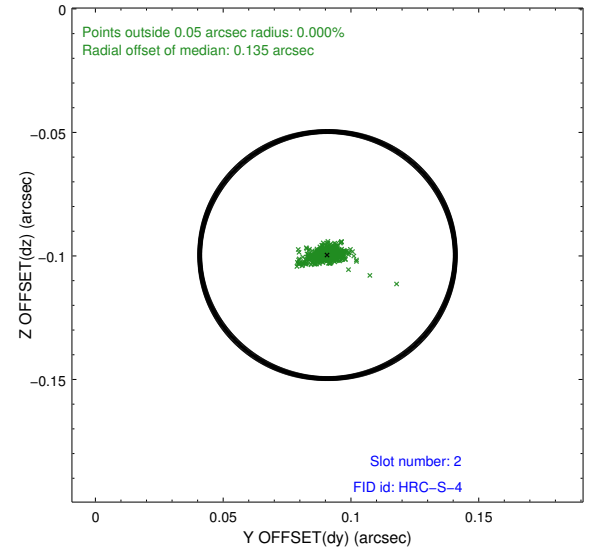
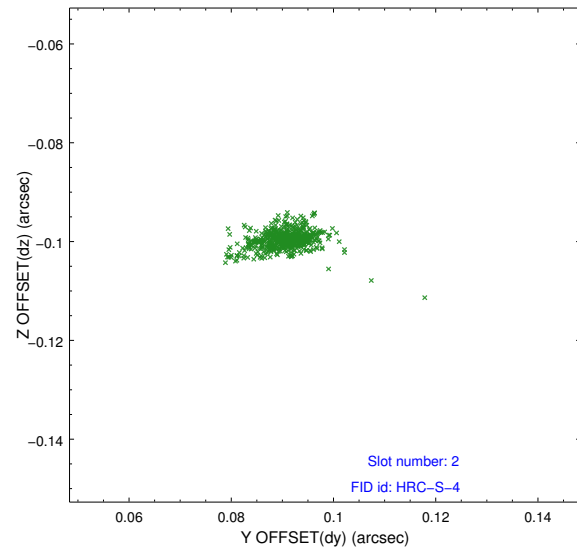
### 2.5.1 Slot 0



## 2.5.2 Slot 1



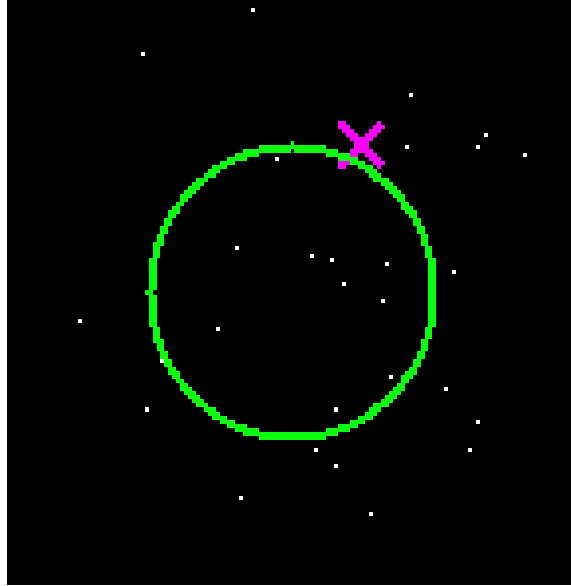
### 2.5.3 Slot 2



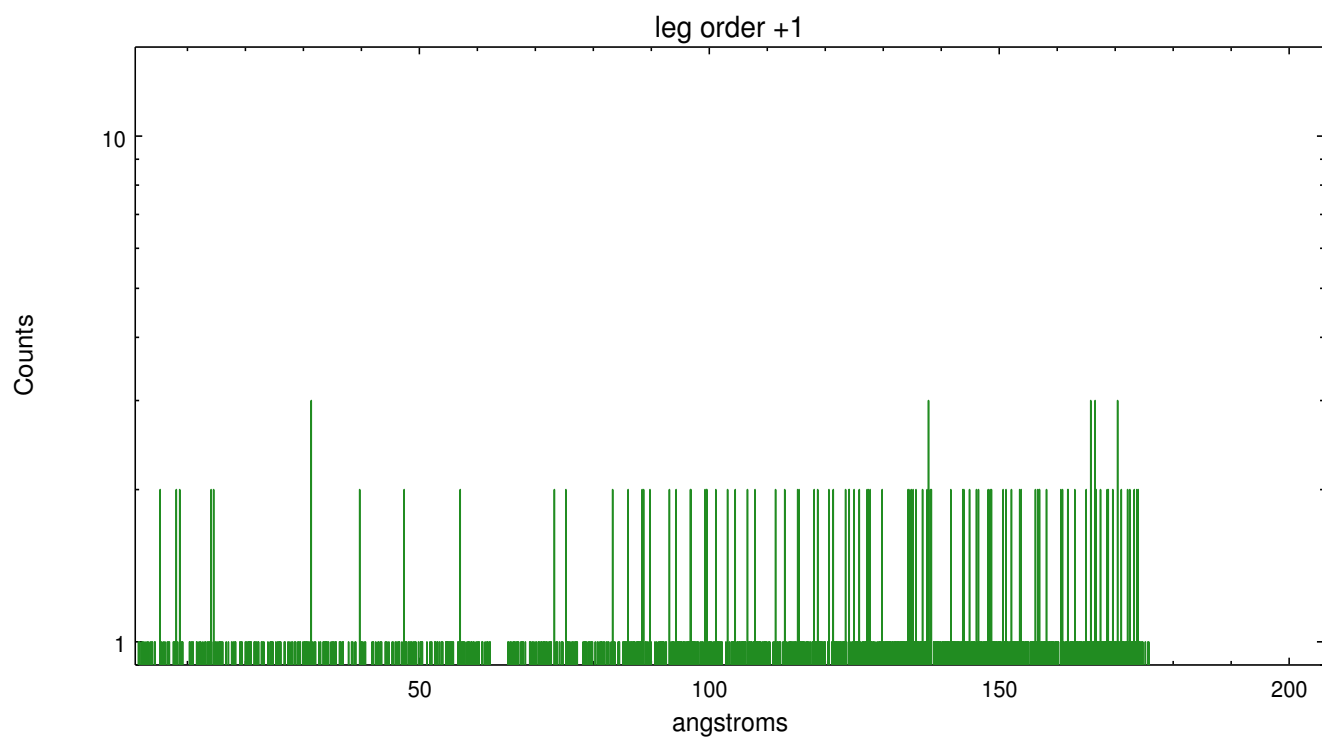
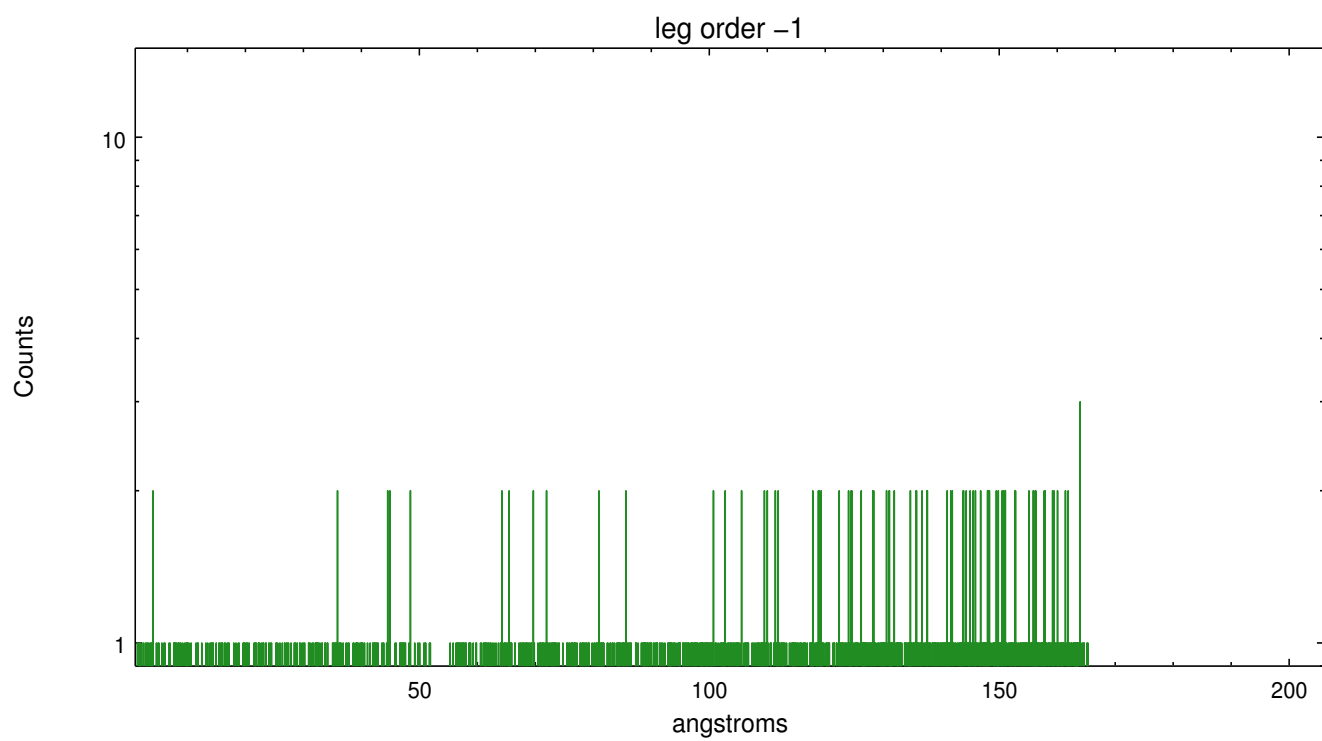


## 3 Gratings

### 3.1 LETG Arm



LETG Zero Order



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.09.28
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.243

## A.2 Comments

Charge time for this ObsId remains at previous value of 2.243 ks, although with the current processing the charge time would be 2.194 ks.

===

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.