

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 1822 - L2 Version 3  
Chandra X-Ray Center

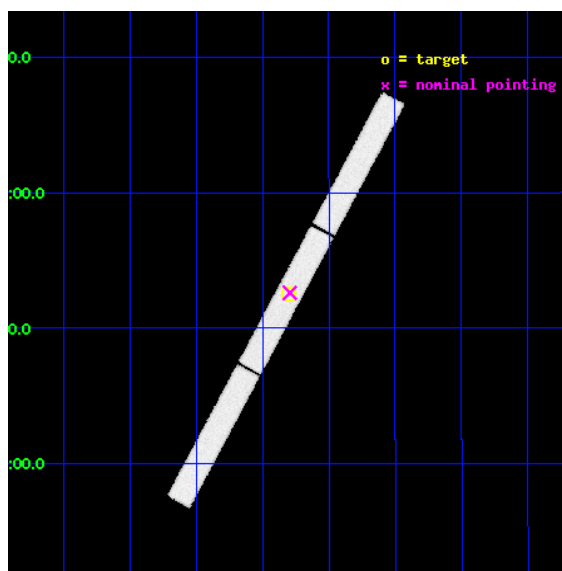
L2 Processing Date : Sep 20 2012

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# 1 Front

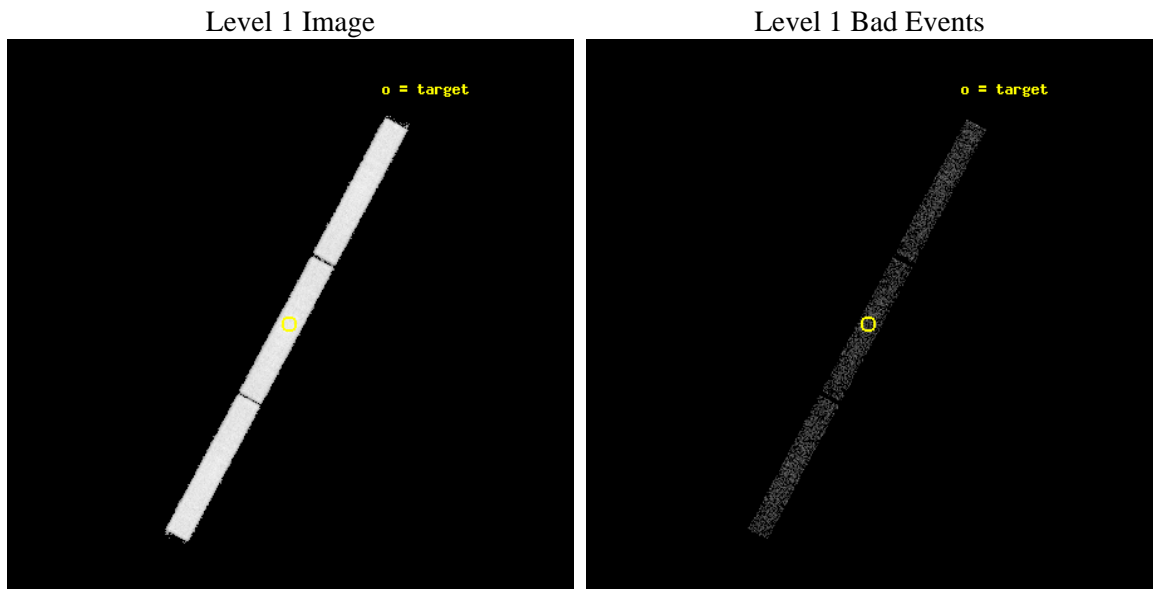
seq_num	100008	Sequence number
obs_id	1822	Observation id
title	SOLVING THE PUZZLE OF COMETARY X-RAY ORIGIN: OBSERVATIONS OF COMET 10P/TEMPEL 2	Proposal title
observer	DR W. THOMAS VESTRAND	Principal investigator
object	LINEAR 2001 A2	Source name
ra_targ	349.399119	Observer's specified target RA [deg]
dec_targ	7.626272	Observer's specified target Dec [deg]
ra_nom	349.39676681744	Nominal RA [deg]
dec_nom	7.6307653943194	Nominal Dec [deg]
roll_nom	118.27122951354	Nominal Roll [deg]
revision	3	Processing version of data
ontime	2394.6563436836	[s]
livetime	2378.0473343747	Ontime multiplied by DTCOR
l2events	153596	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	243999	Number of level 1 events
date	2012-09-20T12:59:57	Date and time of file creation			
revision	3	Processing version of data			

### 2.1.3 Events

Level 1 Events

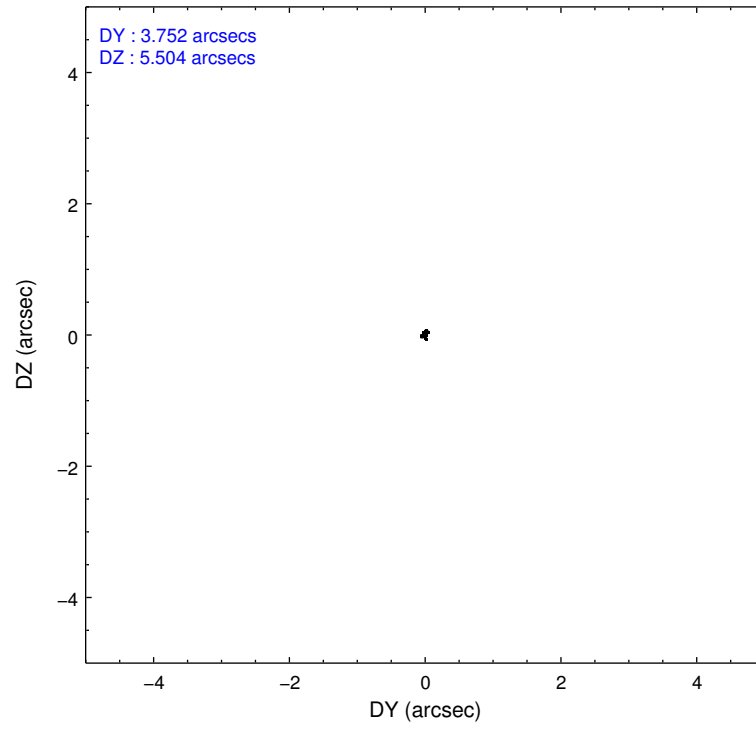
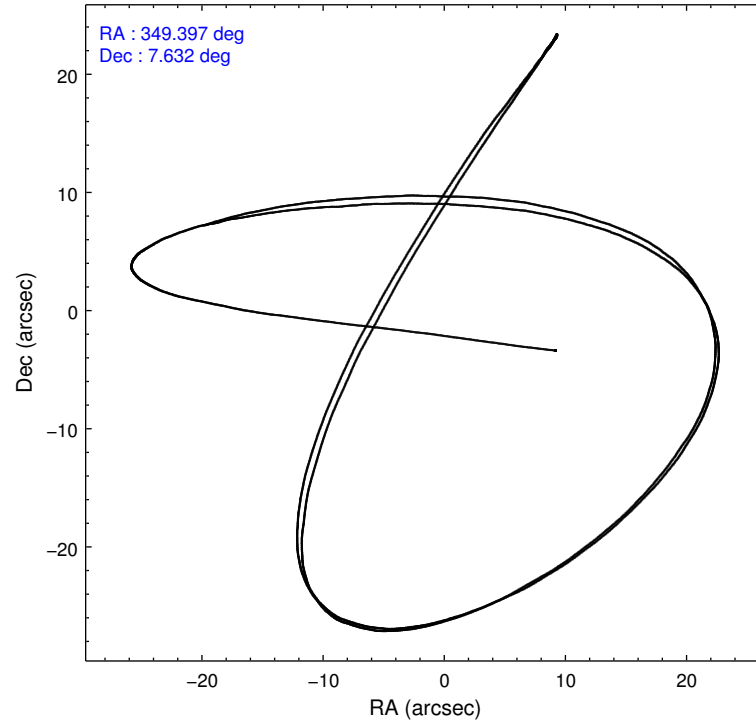
	segment 1	segment 2	segment 3
level 1 events	82011	79754	82234
rejected events	10494	10092	10465
rejected %	12%	12%	12%

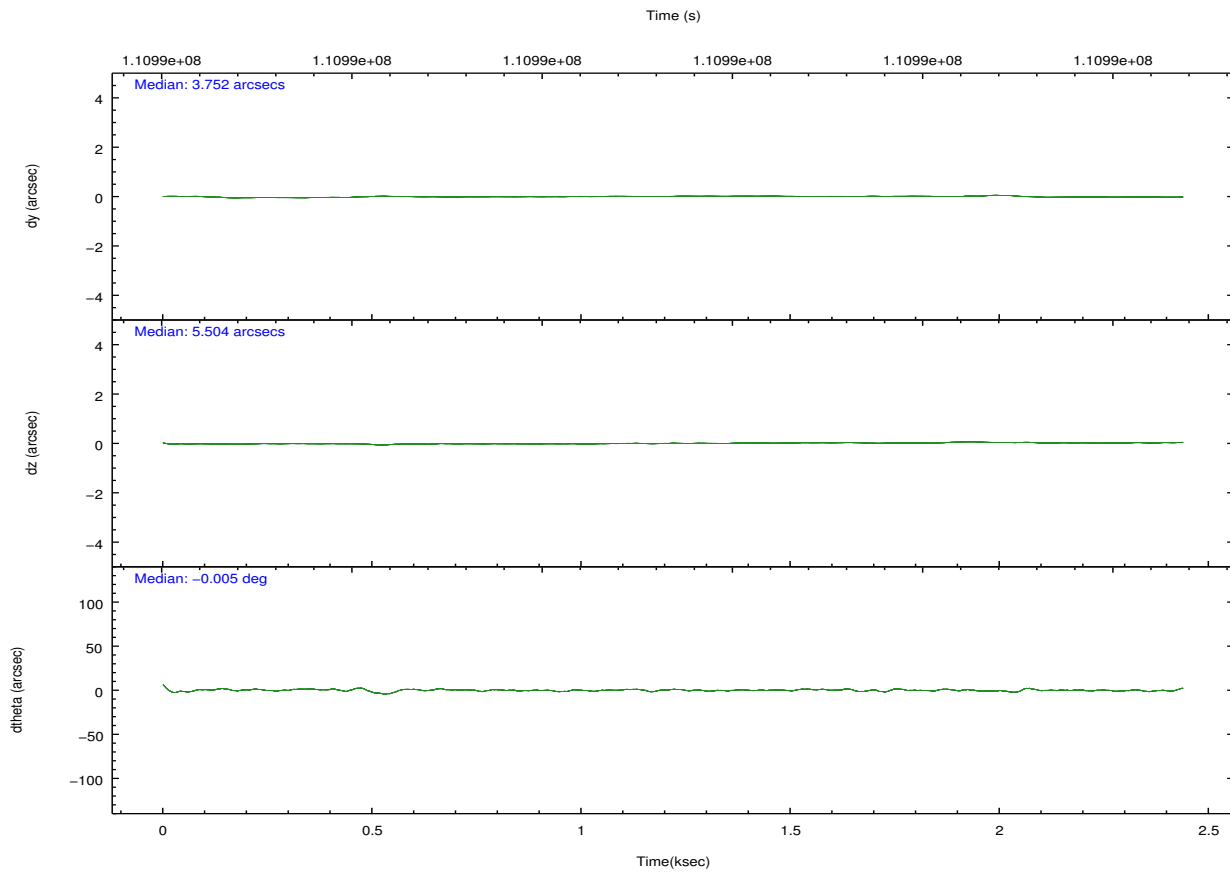
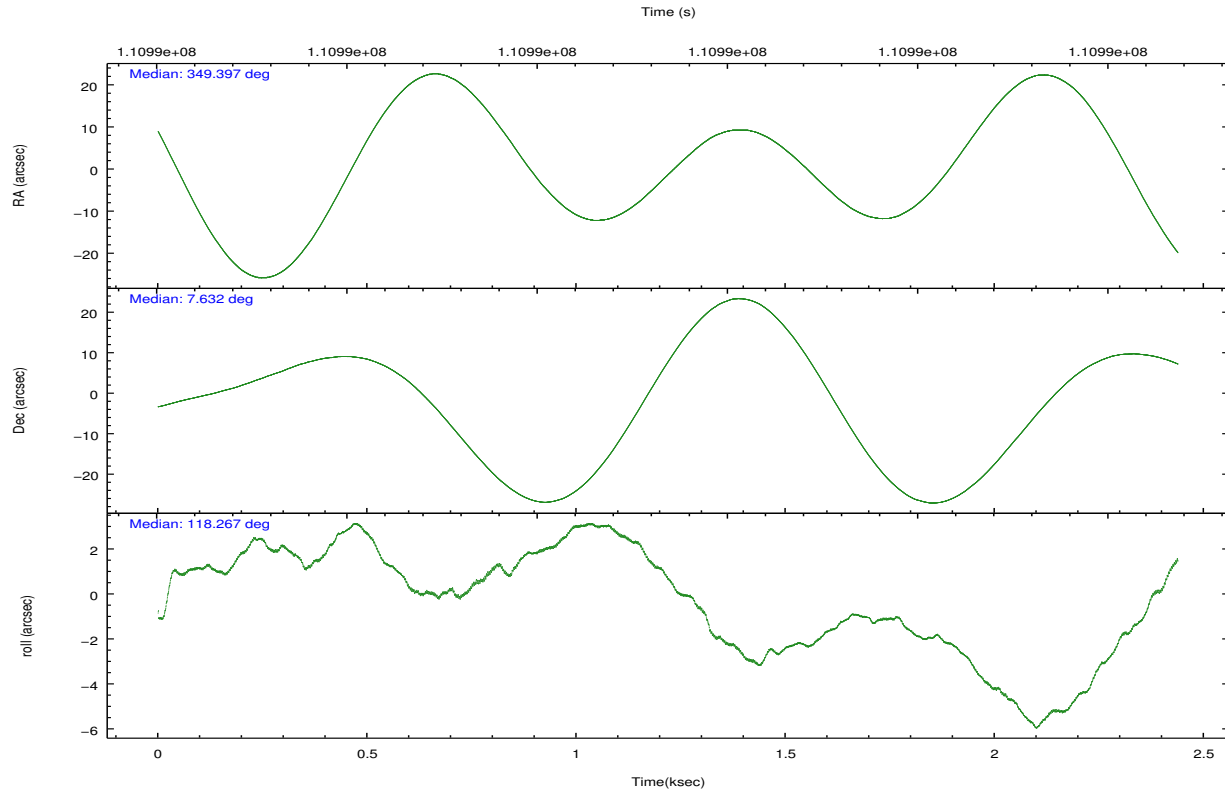
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-S	HRC-S
Grating	LETG	LETG
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
[deg] Pointing RA	349.422269	349.3967668174409
[deg] Pointing Dec	7.616640	7.630765394319377
[deg] Pointing Roll	118.200512	118.2712295135434
[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)	110988814.184000	110988437.8823
Observation start date	2001-07-08T14:12:30	2001-07-08T14:07:17
[s] Observation end time (MET)	110991064.184000	110991198.2074
Observation end date	2001-07-08T14:50:00	2001-07-08T14:53:18

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

## 2.3 Aspect





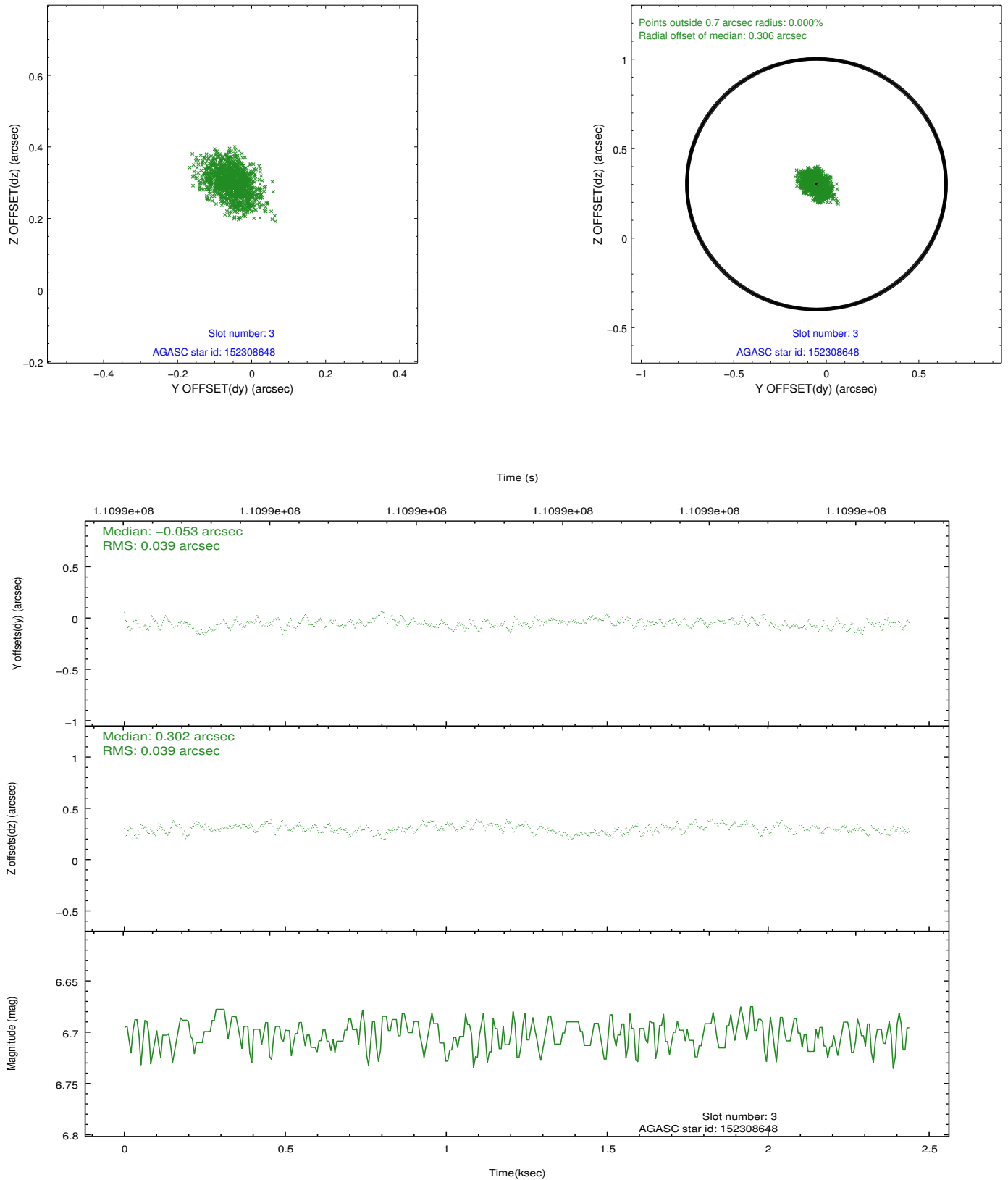
### Slot Statistics

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	595	0.136	-0.165	0.007	0.011	0.000000	0.000000	-1157.80	-454.09
1	FID	HRC-S-3	7.02	594	0.159	-0.029	0.007	0.013	0.000000	0.000000	-1162.47	574.82
2	FID	HRC-S-4	6.95	595	0.092	-0.103	0.004	0.010	0.000000	0.000000	1238.44	579.09
3	GUIDE	152308648	6.70	1191	-0.053	0.302	0.060	0.094	349.950276	7.982087	269.43	-2281.22
4	GUIDE	76420240	7.26	1191	0.263	0.024	0.060	0.092	349.834746	7.214951	-1971.10	-617.76
5	GUIDE	152181256	7.77	1191	-0.134	-0.201	0.058	0.089	349.141958	7.580367	354.46	942.06
6	GUIDE	152180776	8.41	1191	0.112	0.022	0.066	0.125	349.576658	7.835091	431.85	-856.53
7	GUIDE	152180360	8.60	1189	-0.194	-0.152	0.062	0.102	349.110181	8.037159	1858.81	263.74

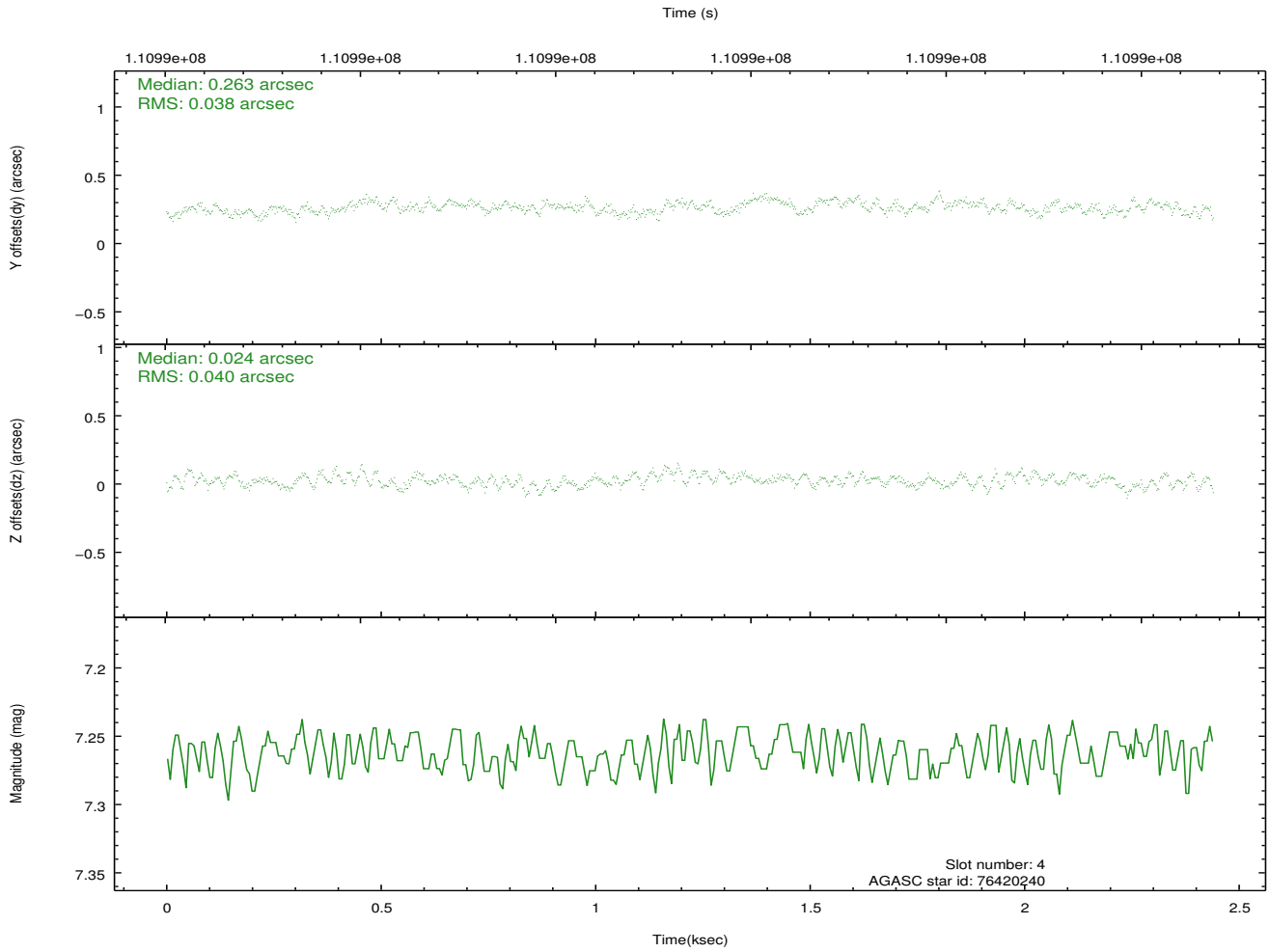
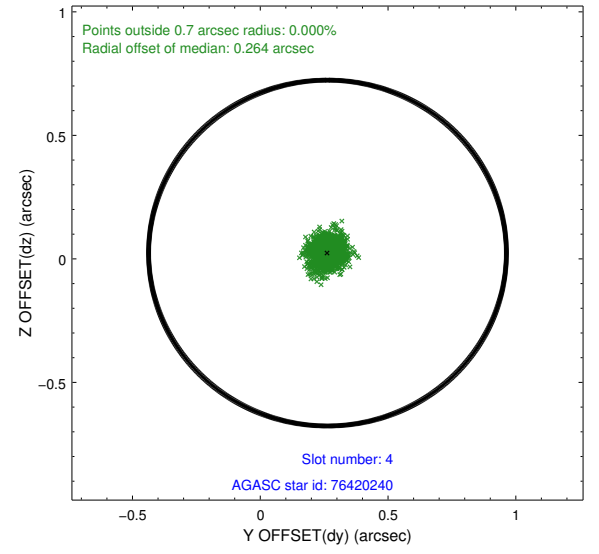
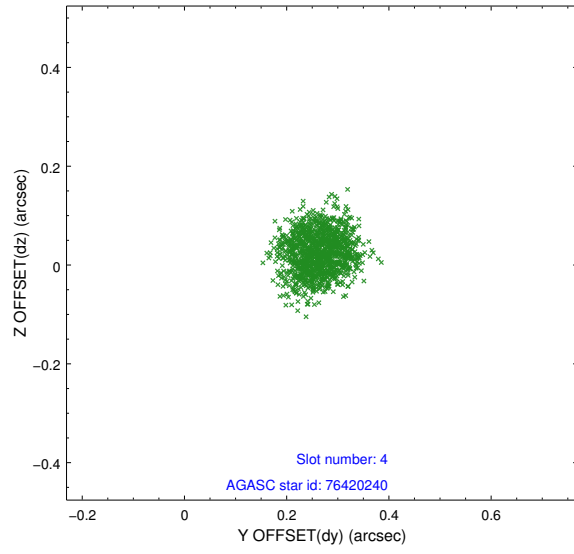


## 2.4 Star Slots

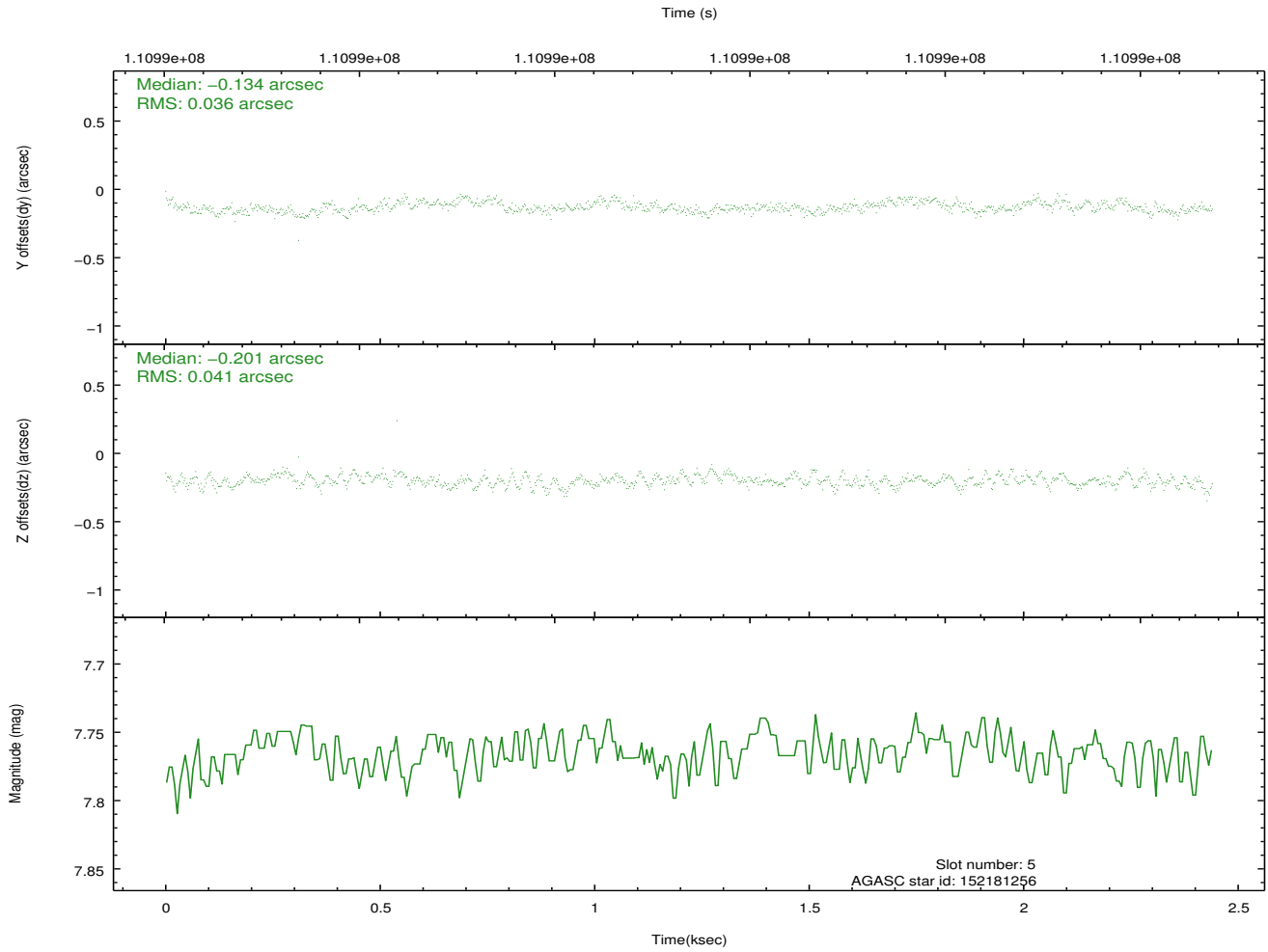
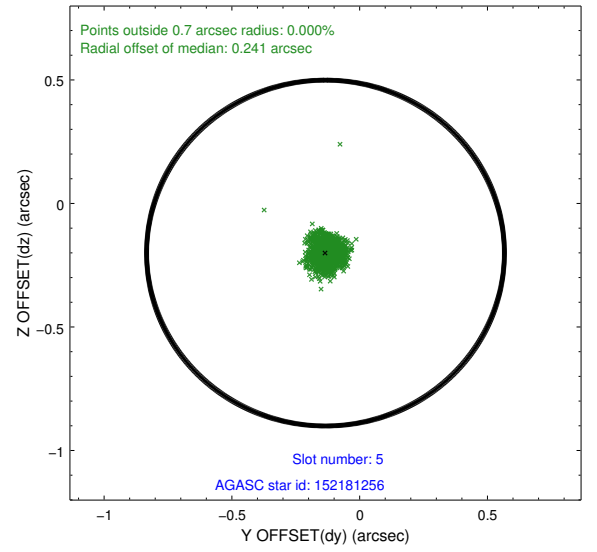
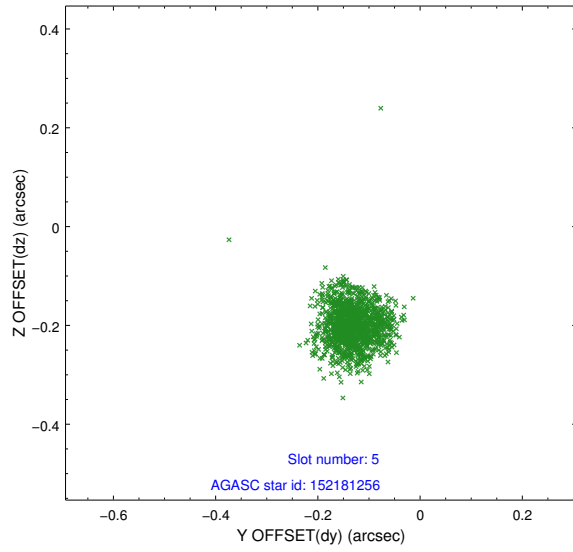
### 2.4.1 Slot 3



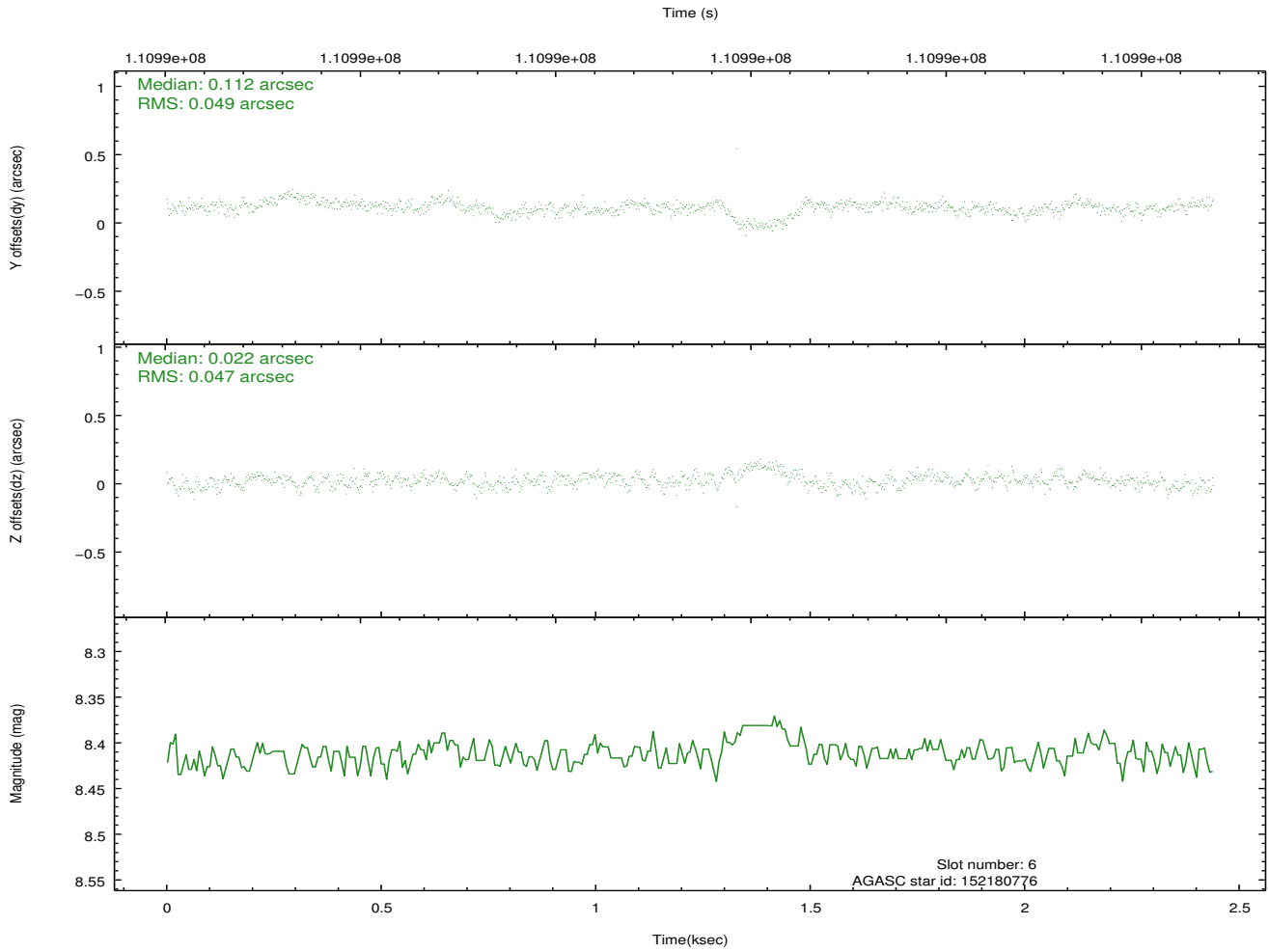
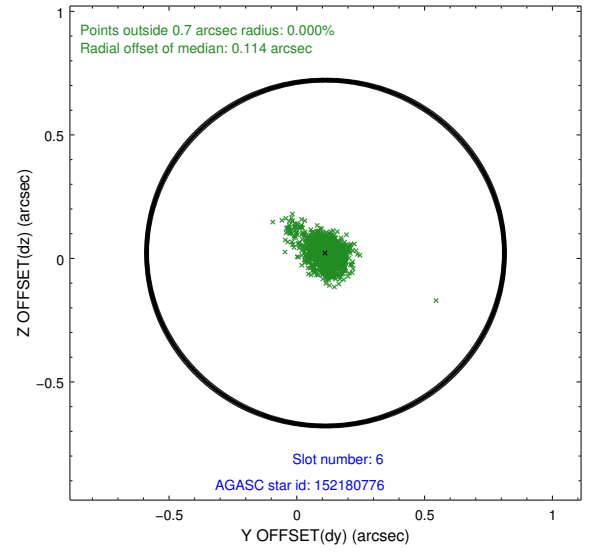
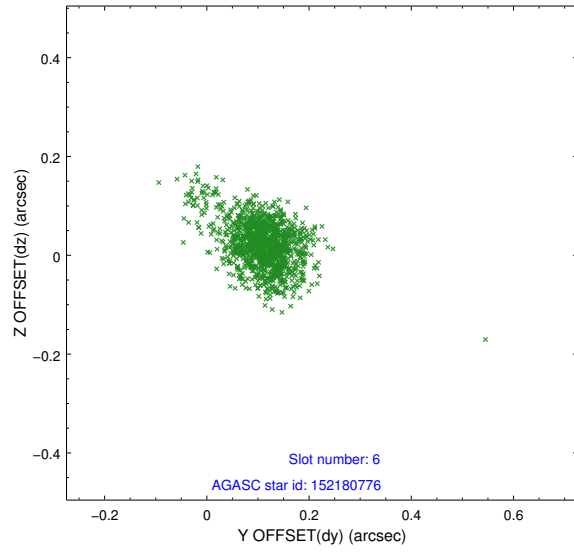
## 2.4.2 Slot 4



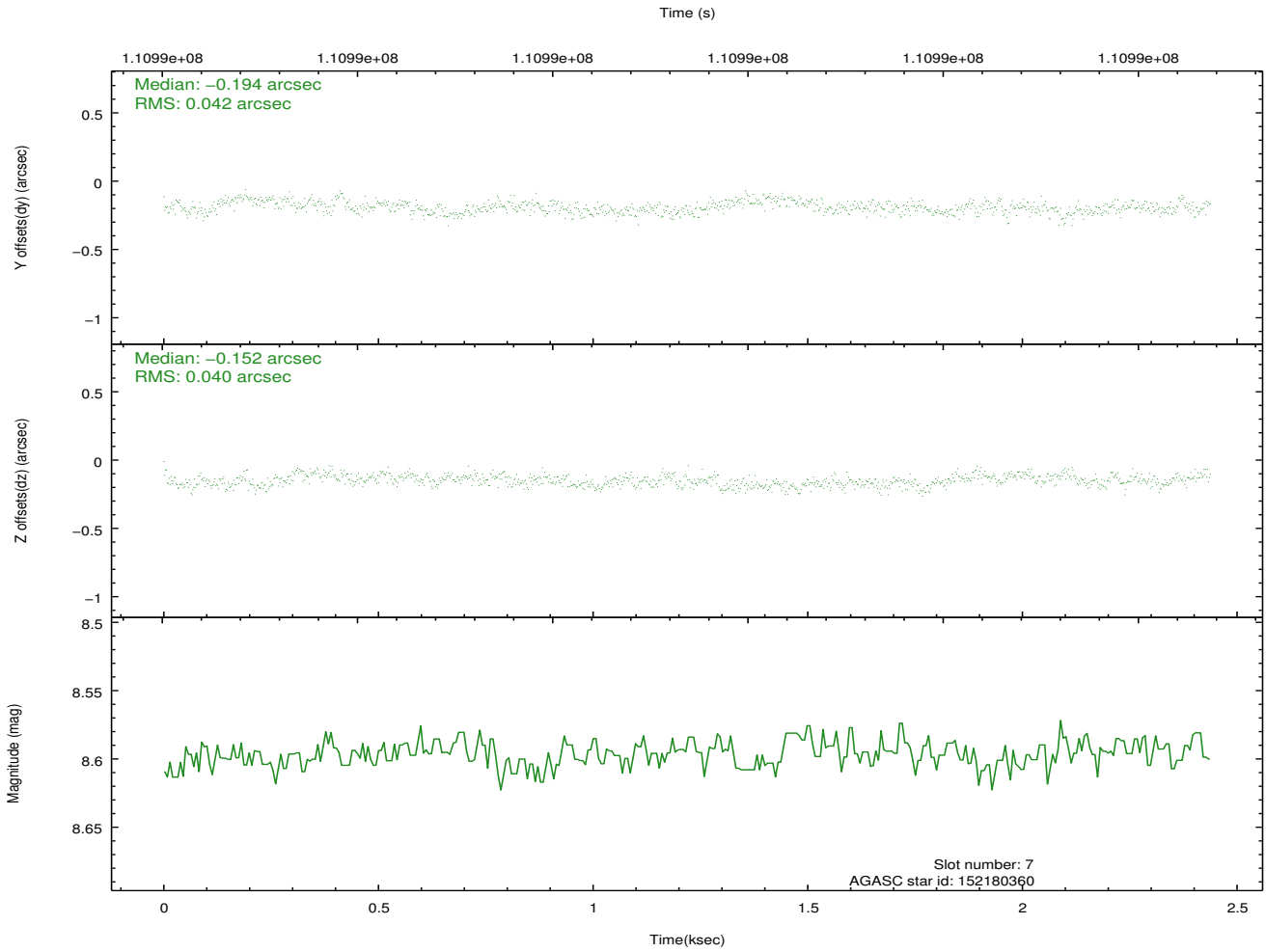
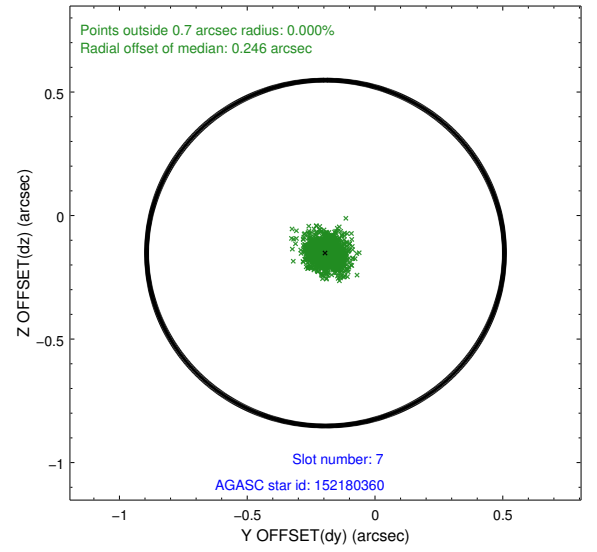
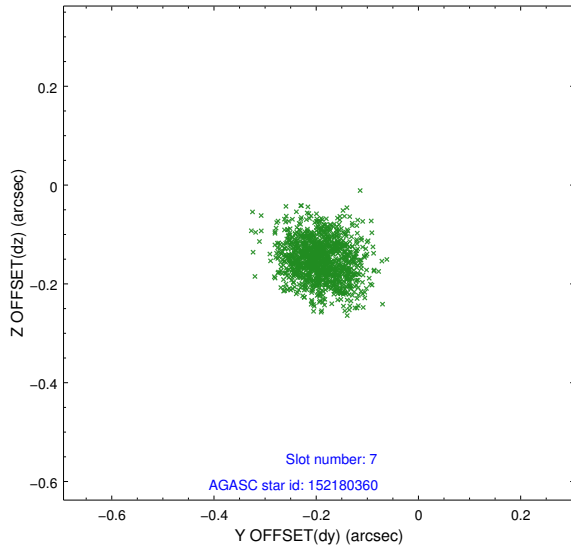
### 2.4.3 Slot 5



## 2.4.4 Slot 6

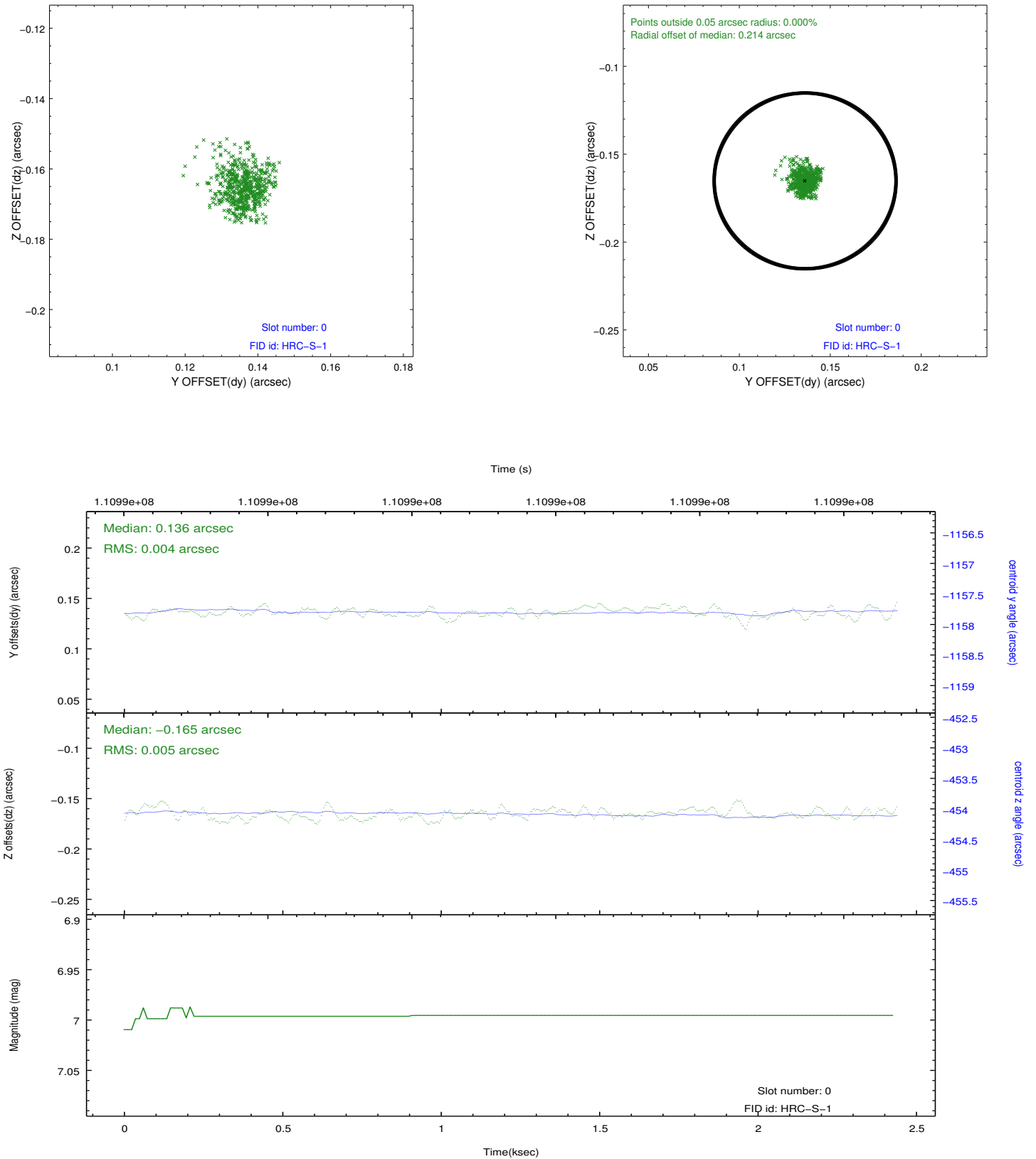


## 2.4.5 Slot 7

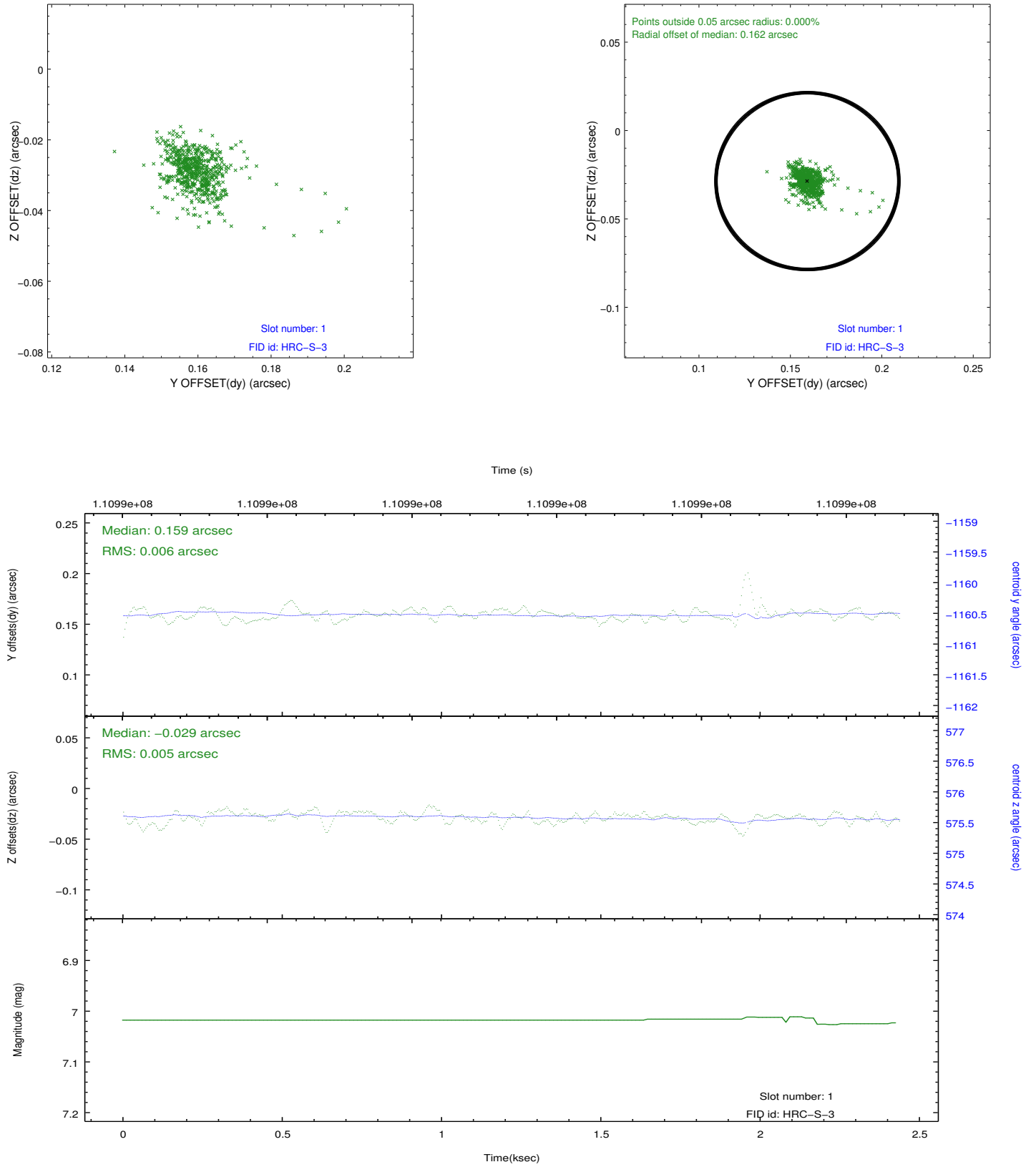


## 2.5 FID Slots

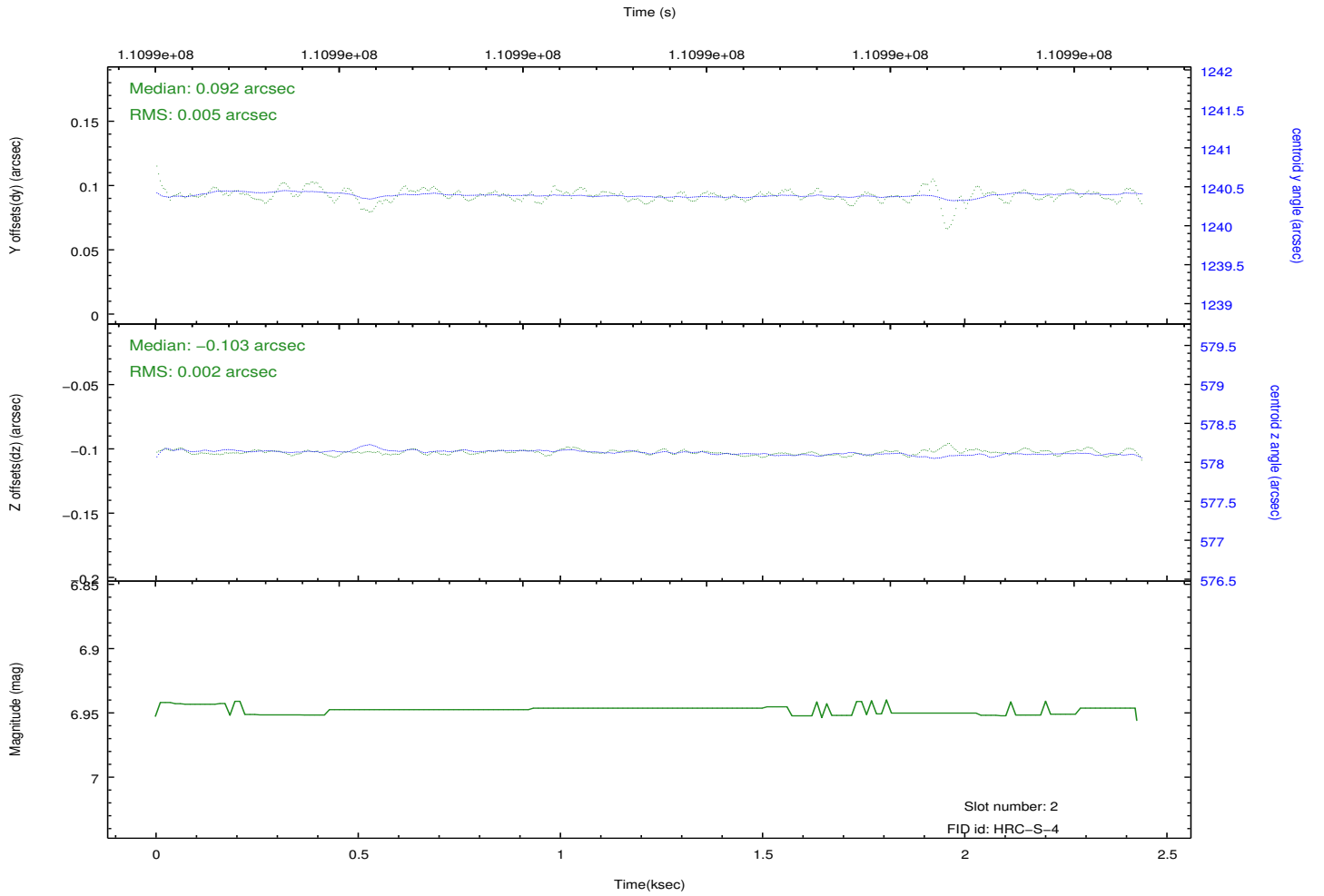
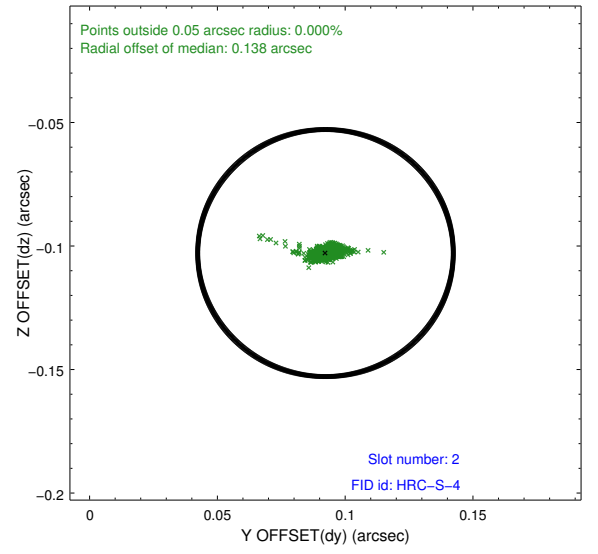
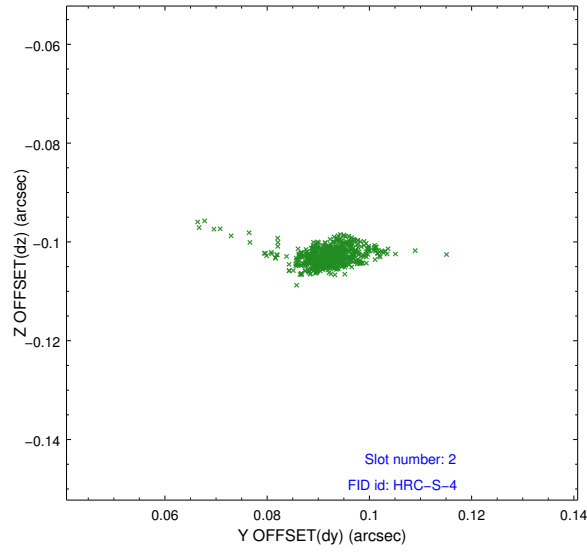
### 2.5.1 Slot 0



## 2.5.2 Slot 1



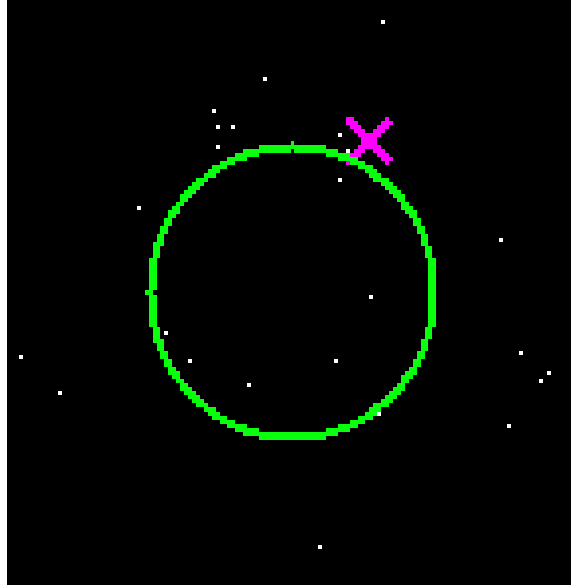
### 2.5.3 Slot 2



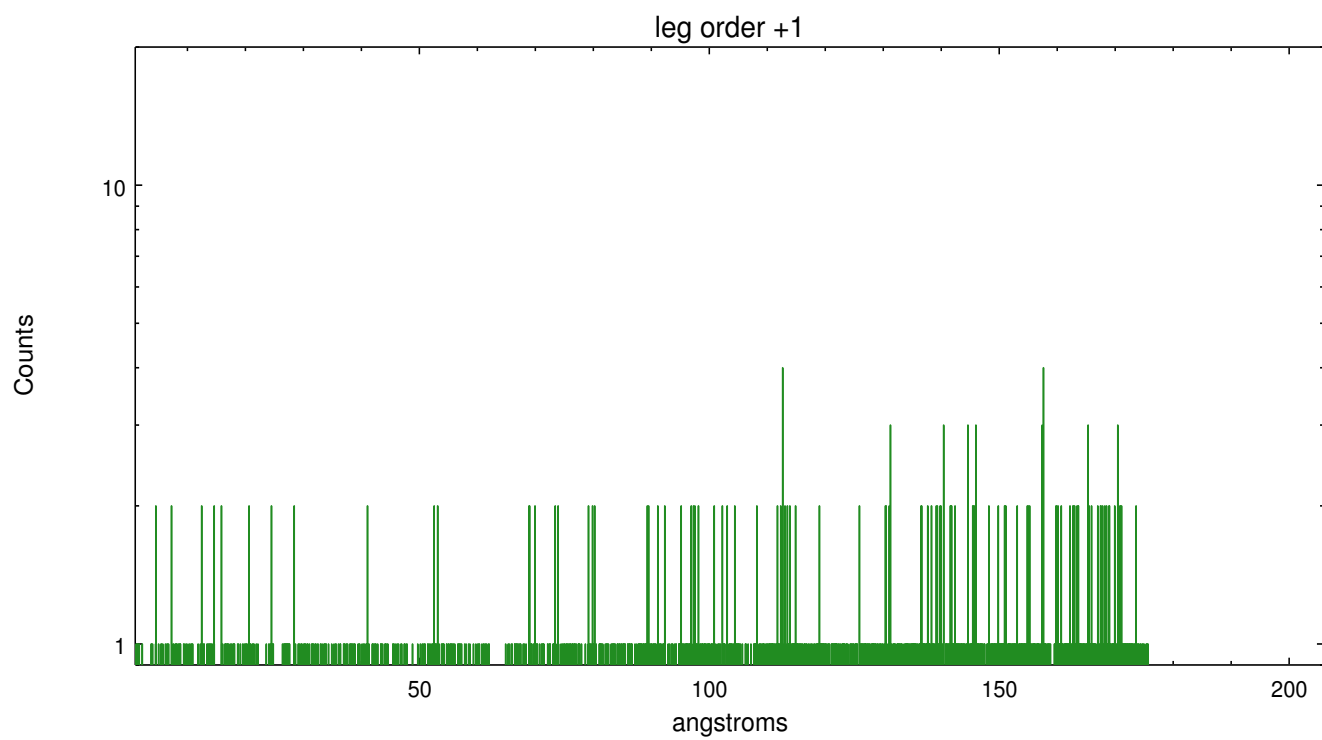
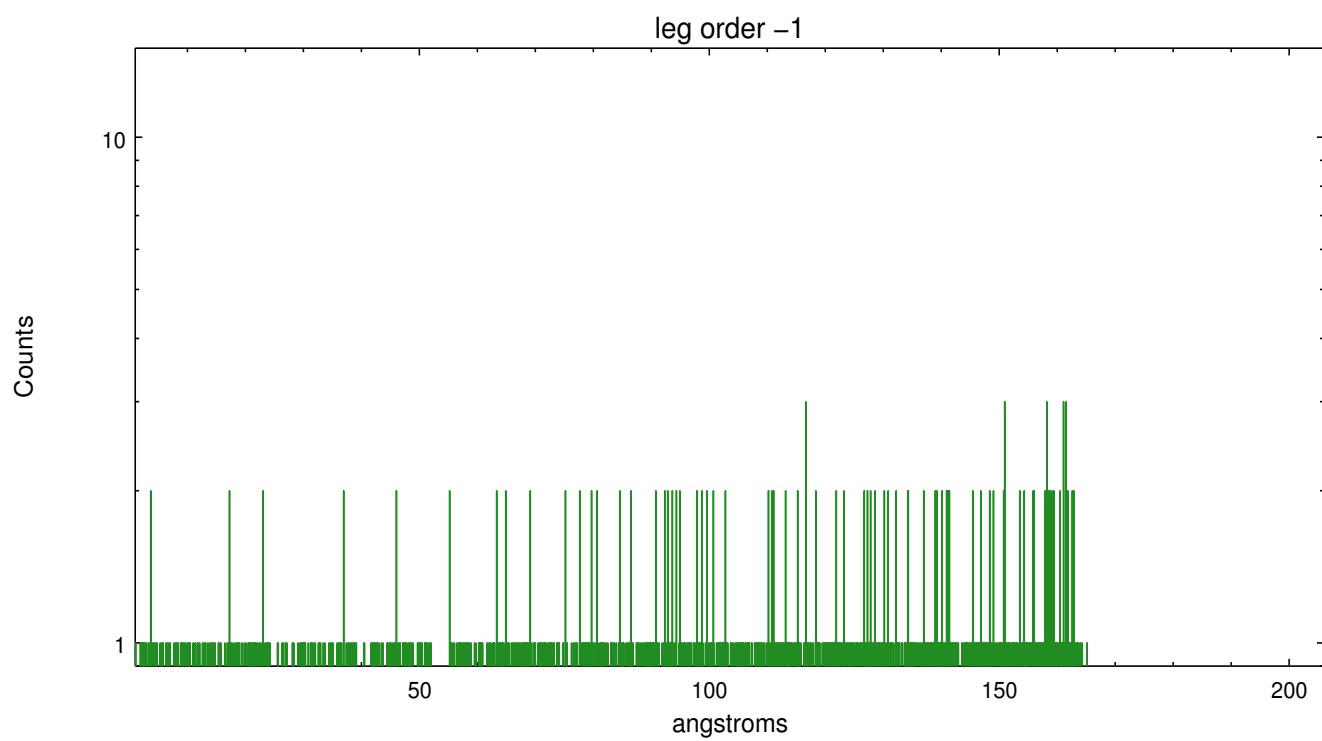


## 3 Gratings

### 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	2.43

## A.2 Comments

Charge time for this ObsId remains at previous value of 2.43 ks, although with the current processing the charge time would have been 2.39 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.