

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 7244 - L2 Version 3  
Chandra X-Ray Center

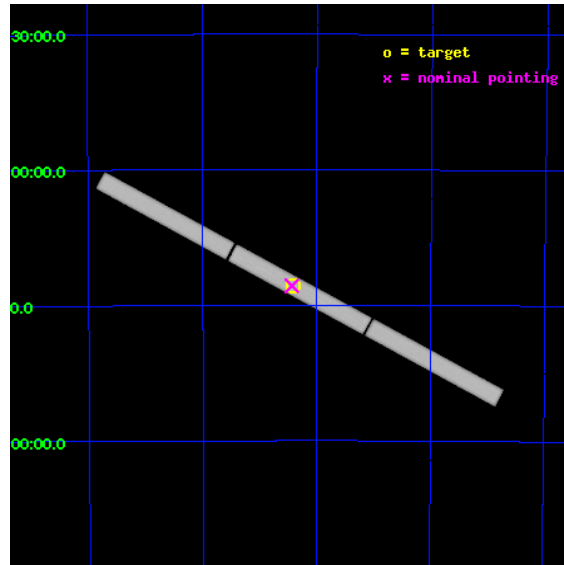
L2 Processing Date : Aug 10 2012

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# 1 Front

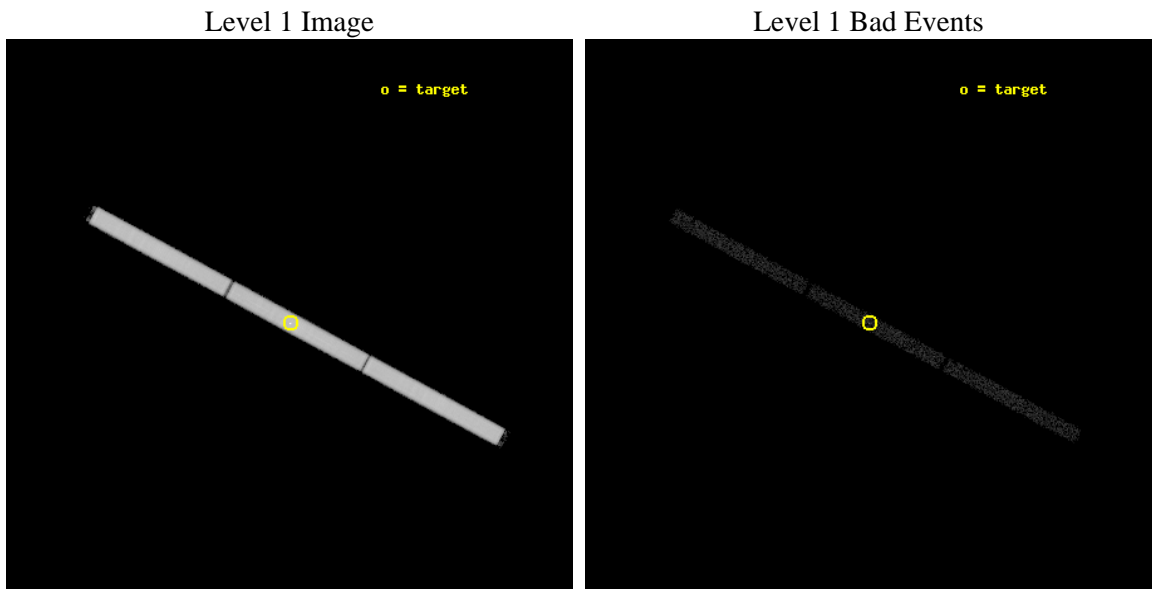
seq_num	500573	Sequence number
obs_id	7244	Observation id
title	Spectra of Neutron Stars with Strongly Magnetized Hydrogen Atmospheres	Proposal title
observer	Prof. Marten van Kerkwijk	Principal investigator
object	RX J0720.4-3125	Source name
ra_targ	110.104167	Observer's specified target RA [deg]
dec_targ	-31.430611	Observer's specified target Dec [deg]
ra_nom	110.10910559556	Nominal RA [deg]
dec_nom	-31.428480089711	Nominal Dec [deg]
roll_nom	28.269885558052	Nominal Roll [deg]
revision	3	Processing version of data
ontime	16291.606993884	[s]
livetime	16164.406321222	Ontime multiplied by DTCOR
l2events	1051375	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	15862.690000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	16291.607003868	[s]
caldsver	4.5.1.1	&#160	l1events	1481942	Number of level 1 events
date	2012-08-10T18:08:45	Date and time of file creation			
revision	3	Processing version of data			

### 2.1.3 Events

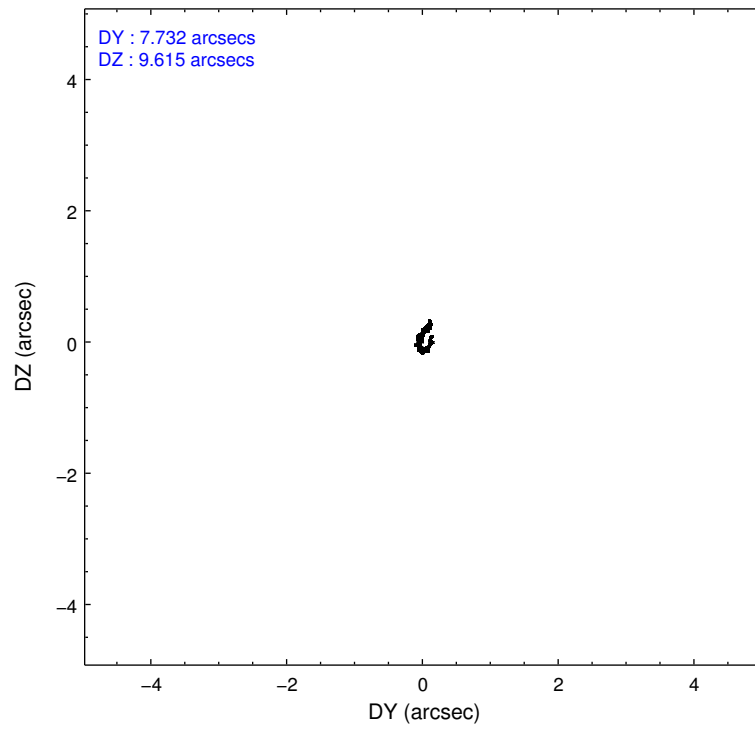
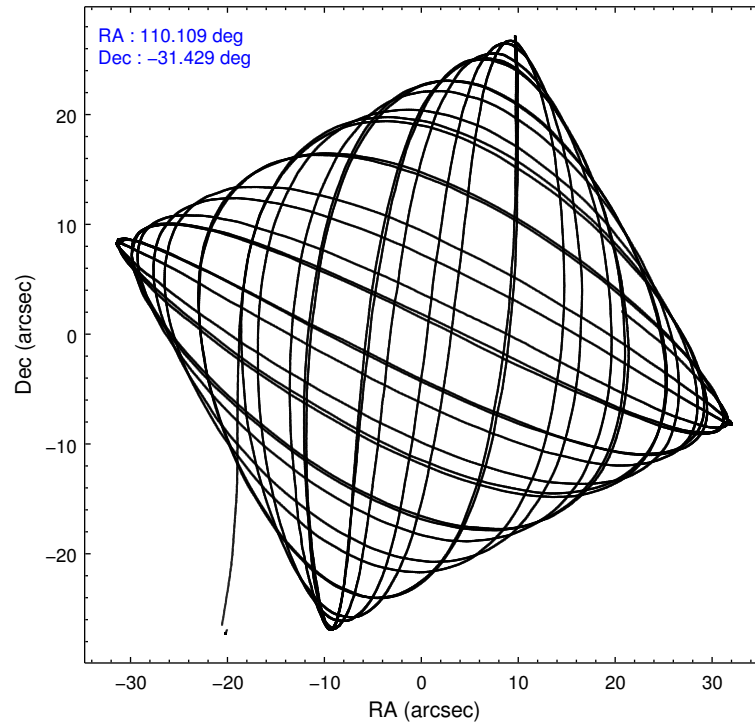
Level 1 Events

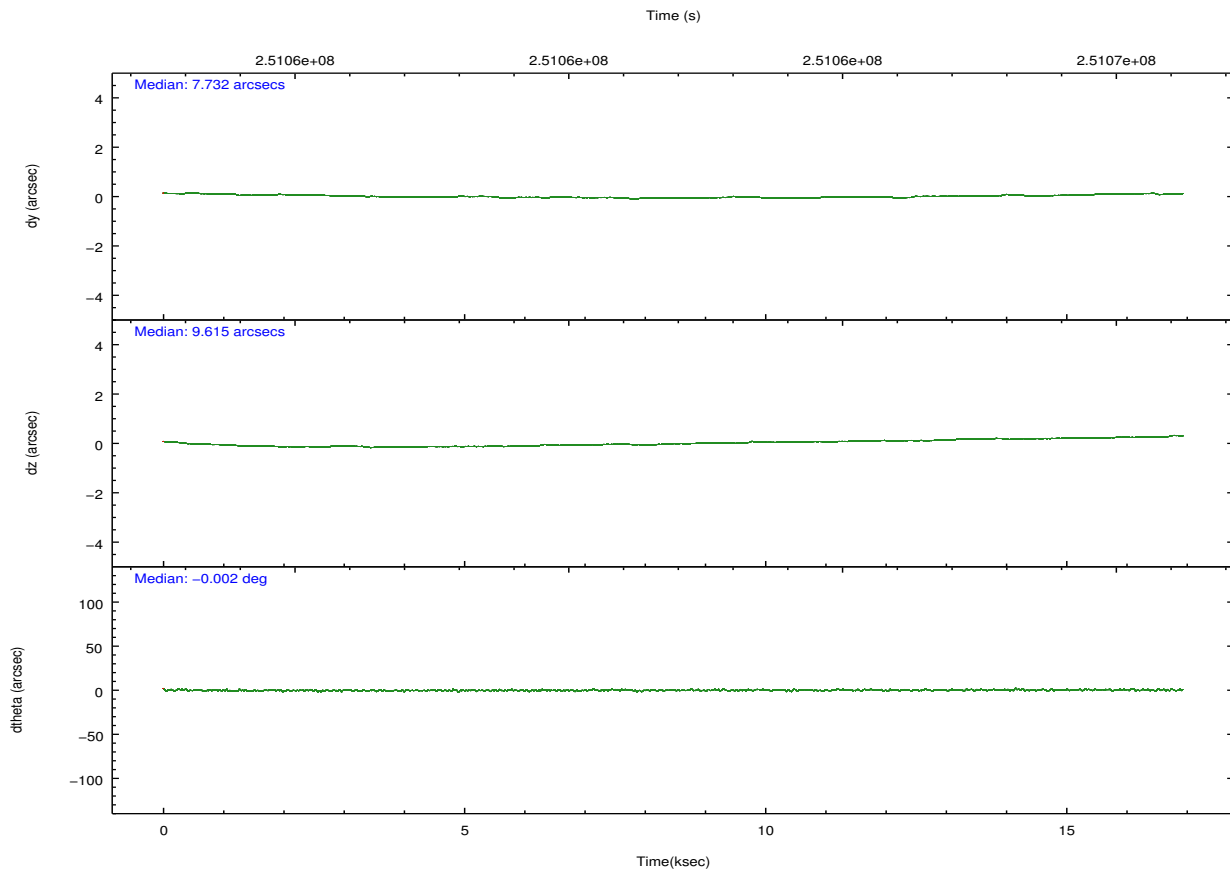
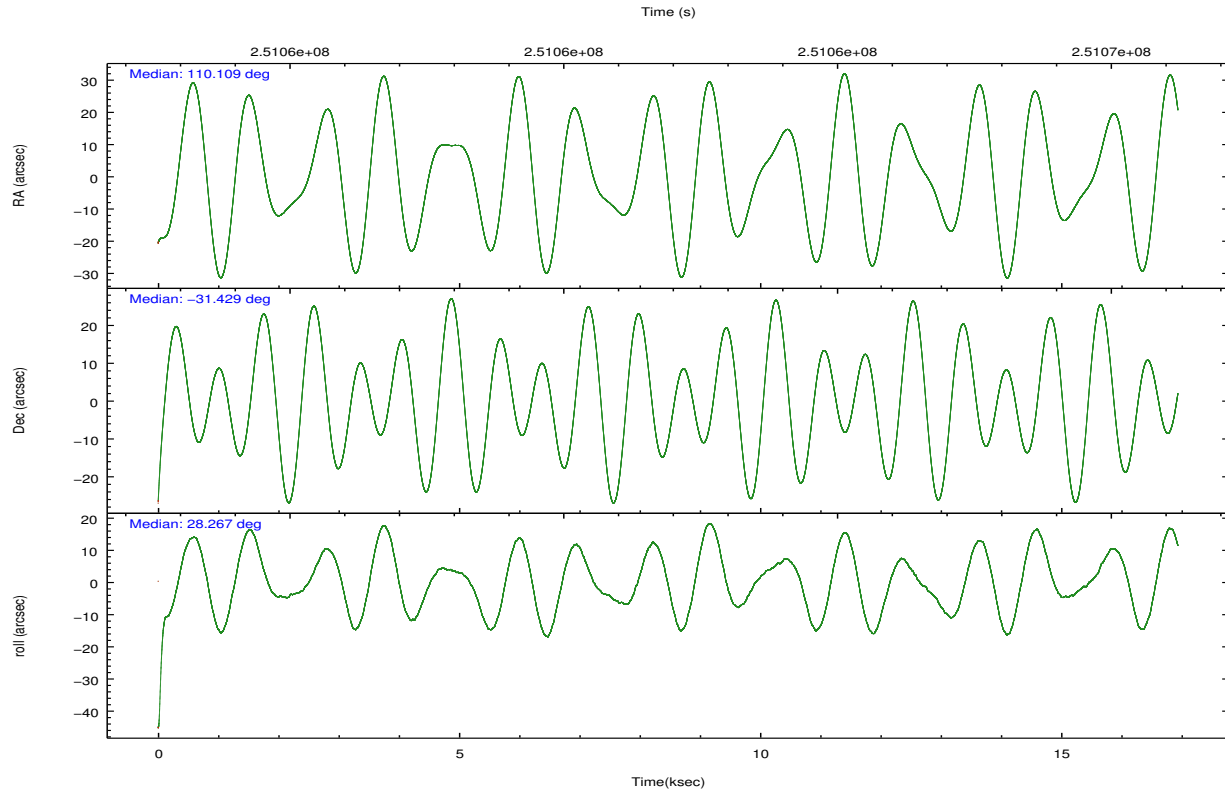
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	496938	487297	497707
rejected events	24649	24084	24617
rejected %	4%	4%	4%

## 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	110.092878	110.1091055955602			
[deg] Pointing Dec	-31.453548	-31.42848008971077			
[deg] Pointing Roll	28.194106	28.26988555805213			
[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)	251053606.184000	251052721.28827			
Observation start date	2005-12-15T17:05:42	2005-12-15T16:52:01			
[s] Observation end time (MET)	251069469.184000	251071019.07661			
Observation end date	2005-12-15T21:30:05	2005-12-15T21:56:59			

## 2.3 Aspect



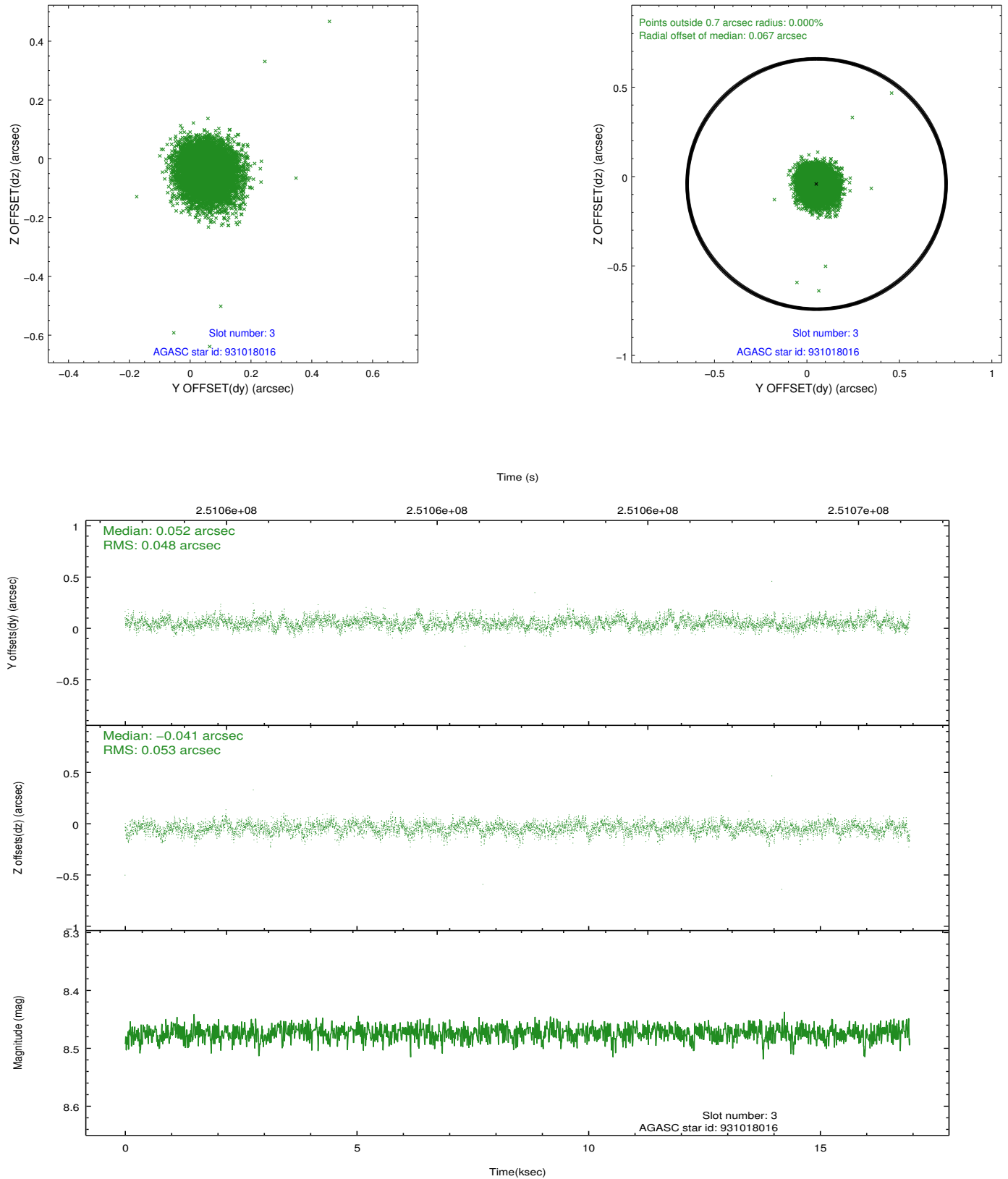


### Slot Statistics

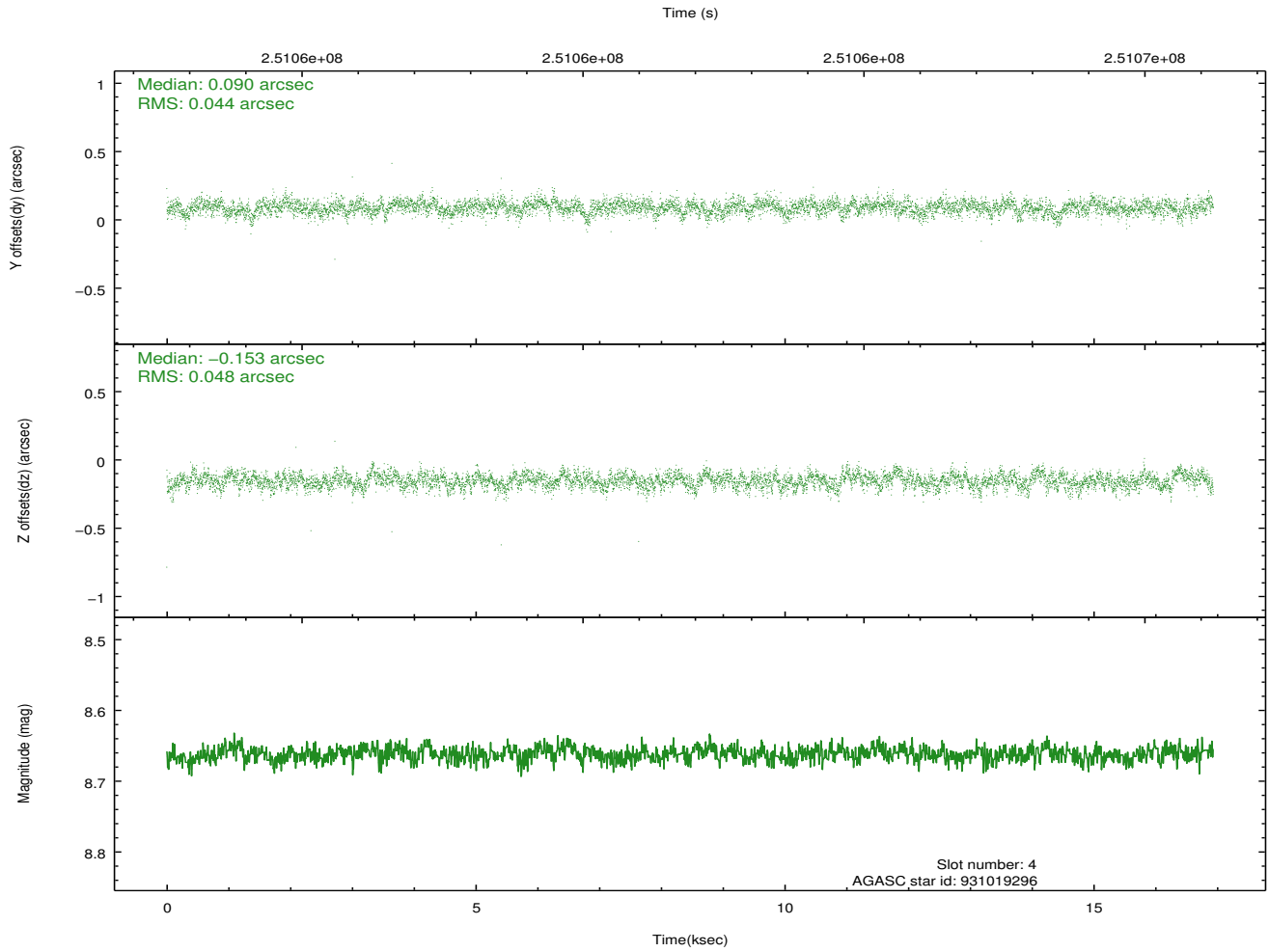
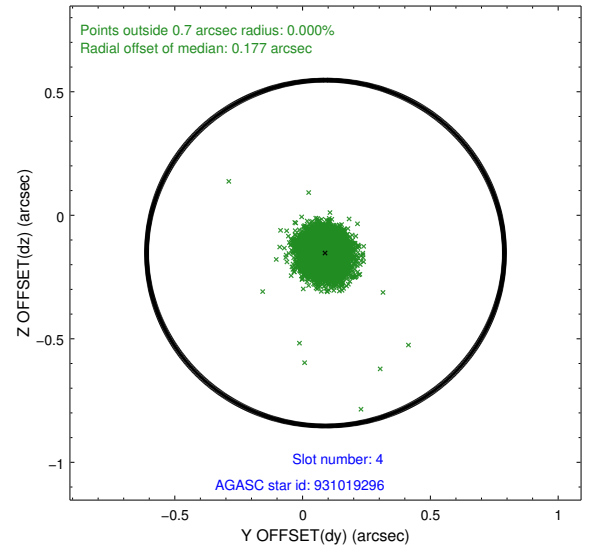
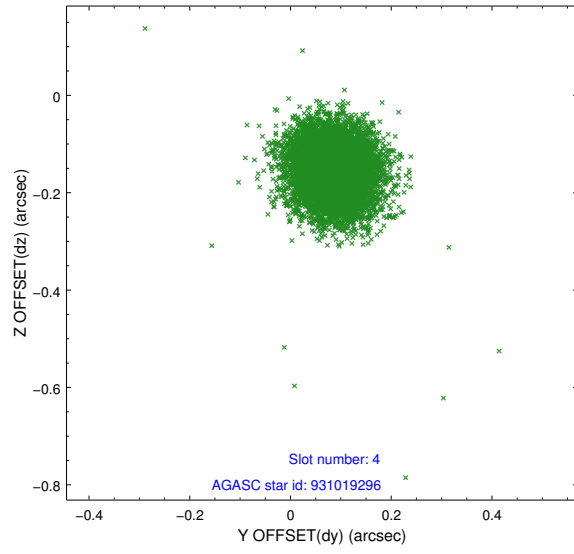
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-S-1	7.08	4131	0.142	-0.213	0.007	0.011	0.000000	0.000000	-1161.91	-458.35
1	FID	HRC-S-2	7.08	4131	0.170	-0.123	0.005	0.010	0.000000	0.000000	1237.52	-451.05
2	FID	HRC-S-3	7.09	4130	0.077	0.034	0.007	0.012	0.000000	0.000000	-1164.38	571.32
3	GUIDE	931018016	8.47	8247	0.052	-0.041	0.074	0.121	109.684535	-31.226562	-722.87	1312.08
4	GUIDE	931019296	8.66	8260	0.090	-0.153	0.068	0.111	109.471771	-31.694370	-2089.12	129.83
5	GUIDE	931022960	8.95	8259	0.098	0.174	0.076	0.124	109.733092	-31.864448	-1669.24	-785.36
6	GUIDE	931146200	8.97	8258	-0.151	0.091	0.074	0.120	110.586199	-31.643611	1007.53	-1320.18
7	GUIDE	931160352	8.63	8259	-0.090	-0.067	0.074	0.118	110.268138	-30.864891	1478.44	1611.66

## 2.4 Star Slots

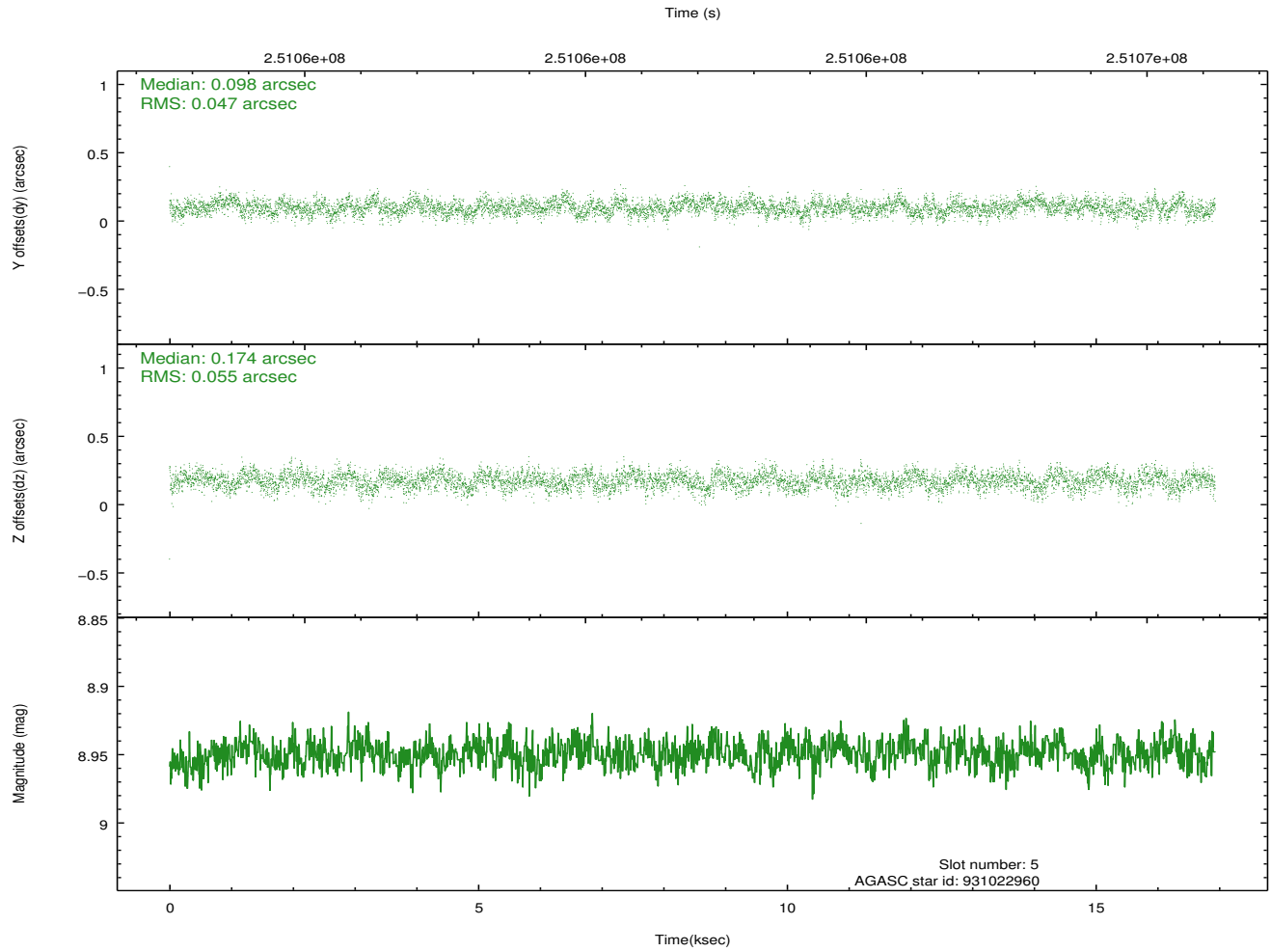
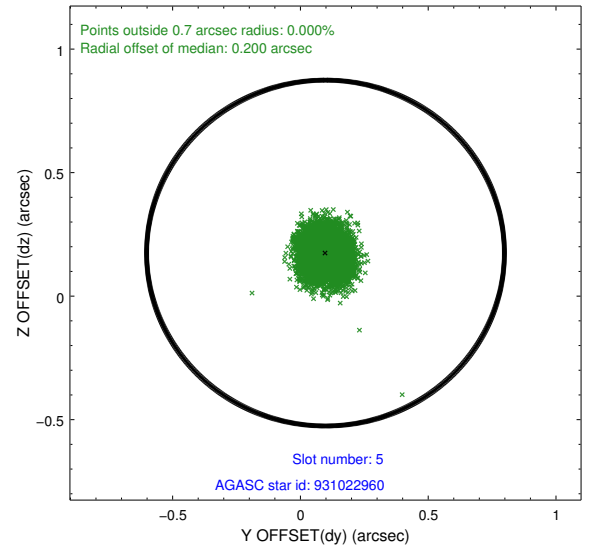
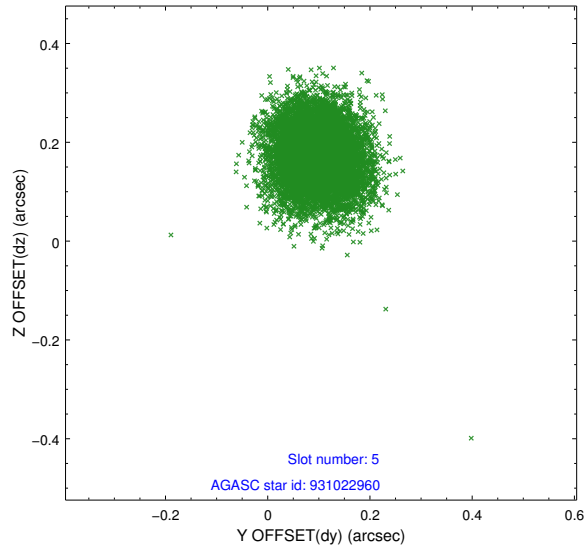
### 2.4.1 Slot 3



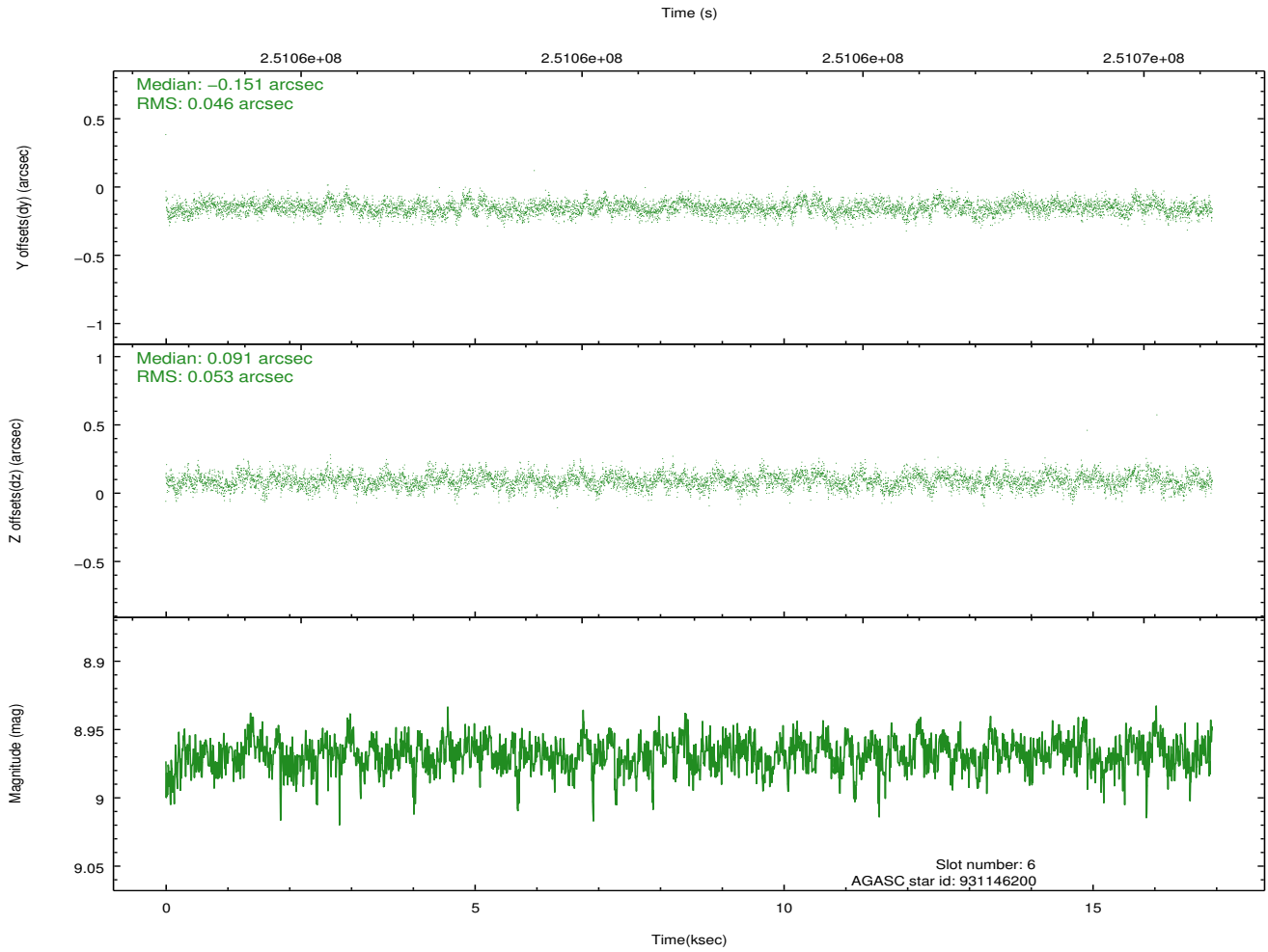
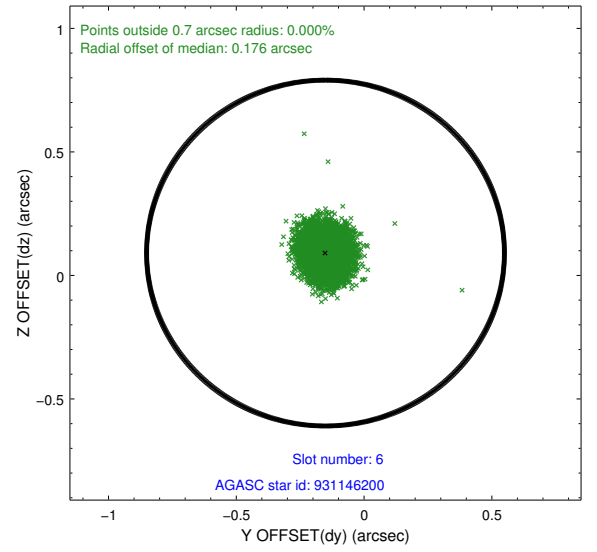
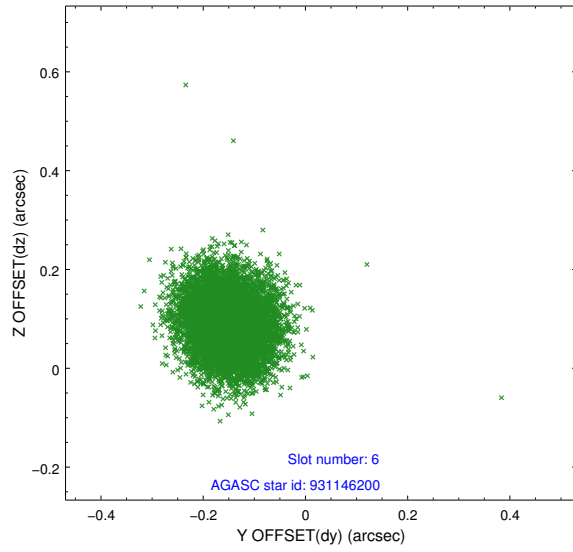
## 2.4.2 Slot 4



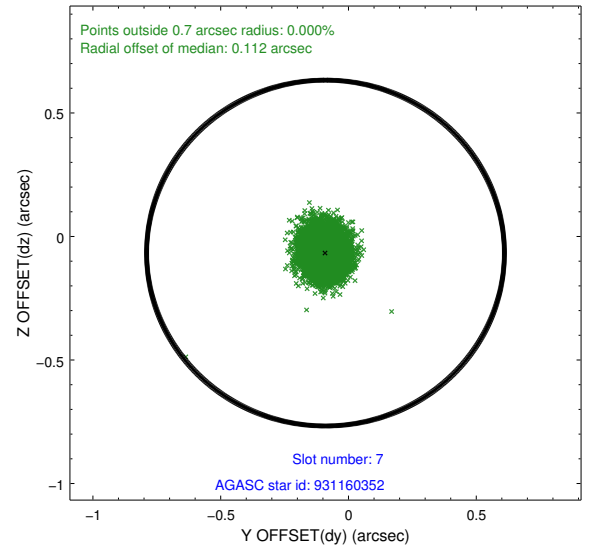
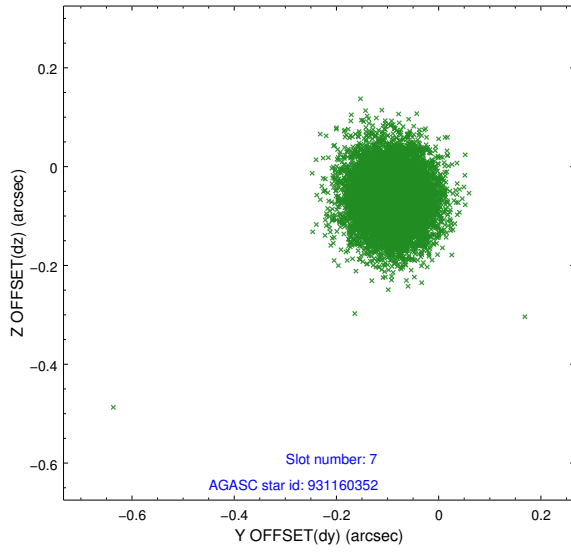
### 2.4.3 Slot 5



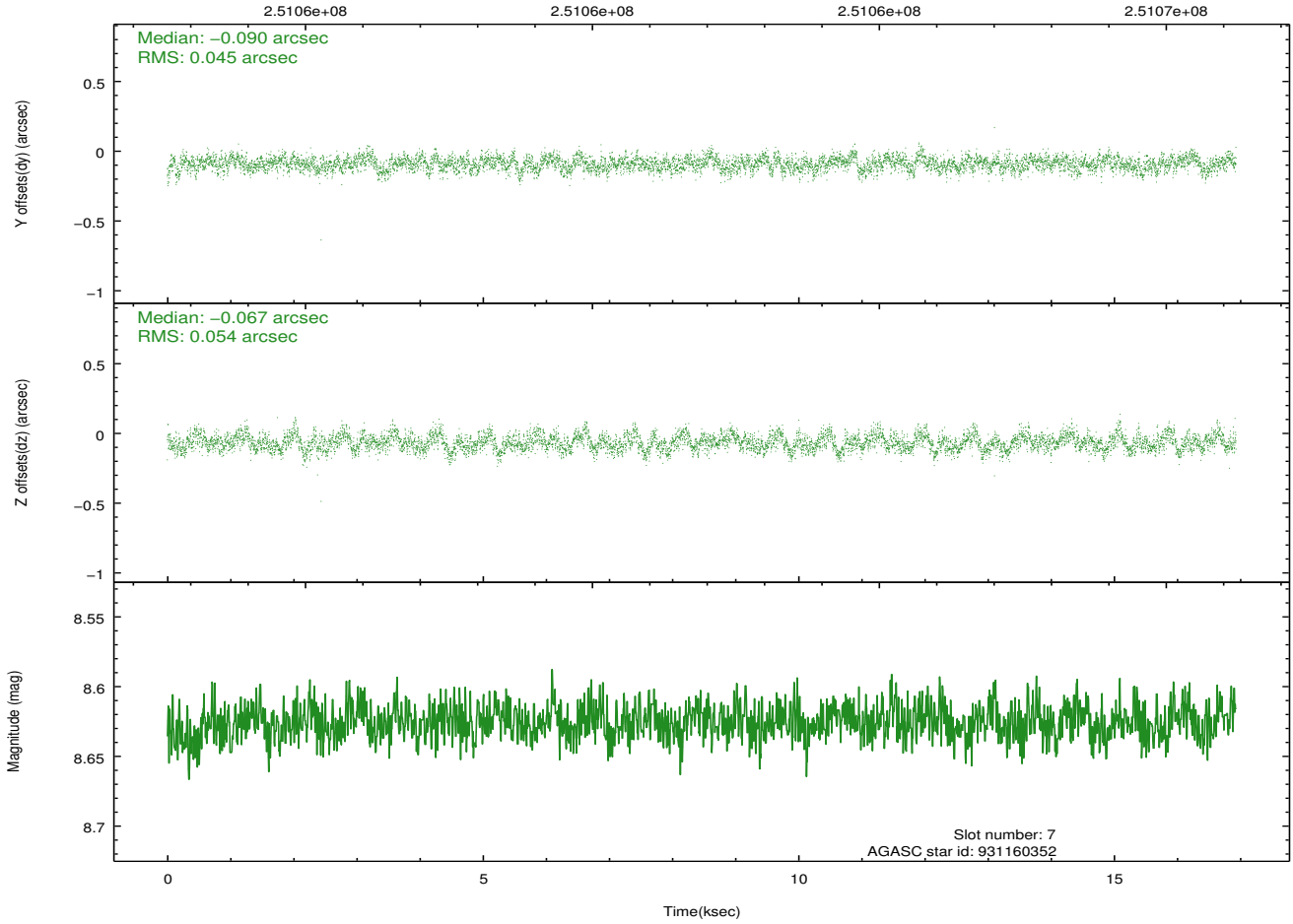
## 2.4.4 Slot 6



## 2.4.5 Slot 7

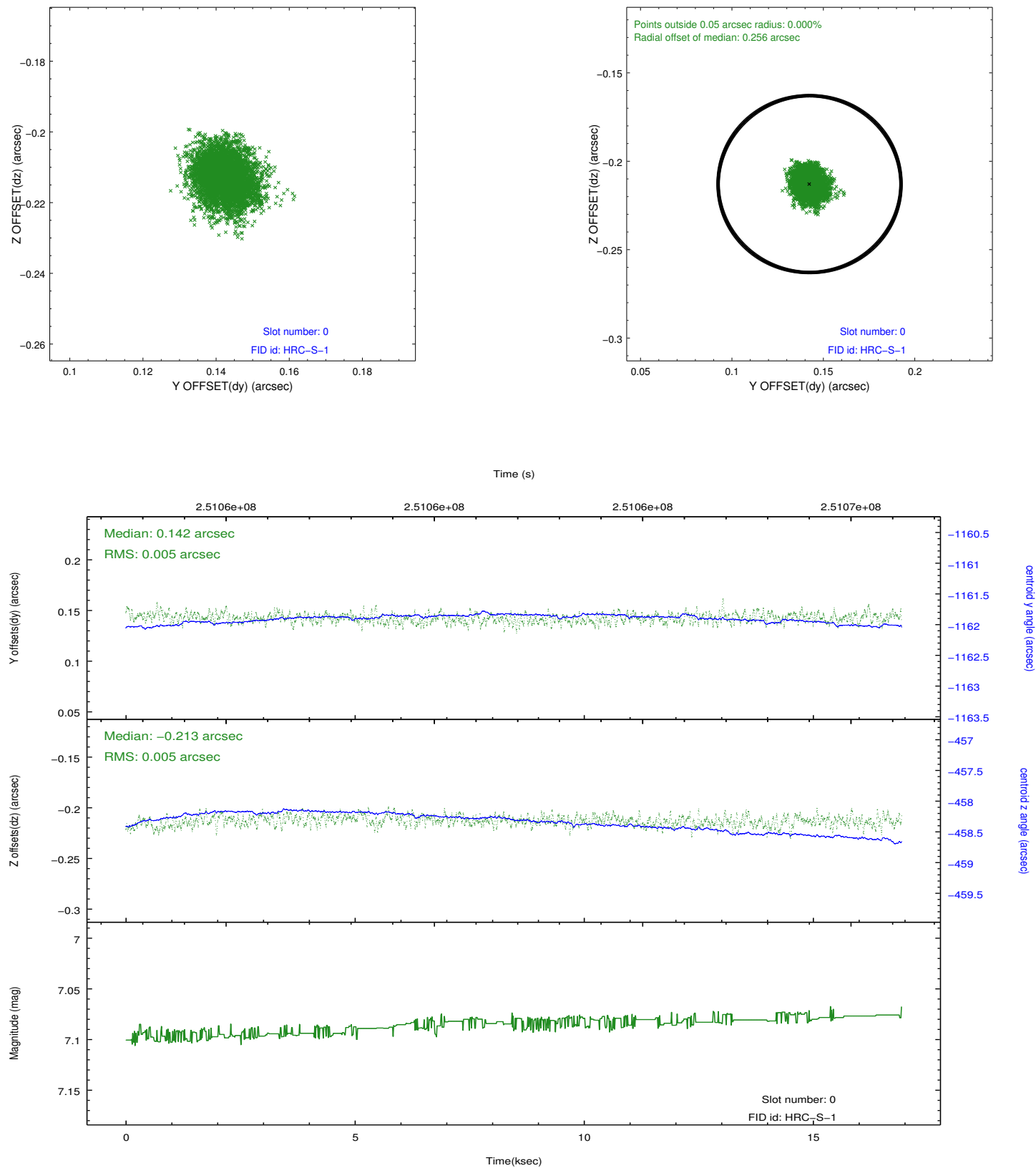


Time (s)

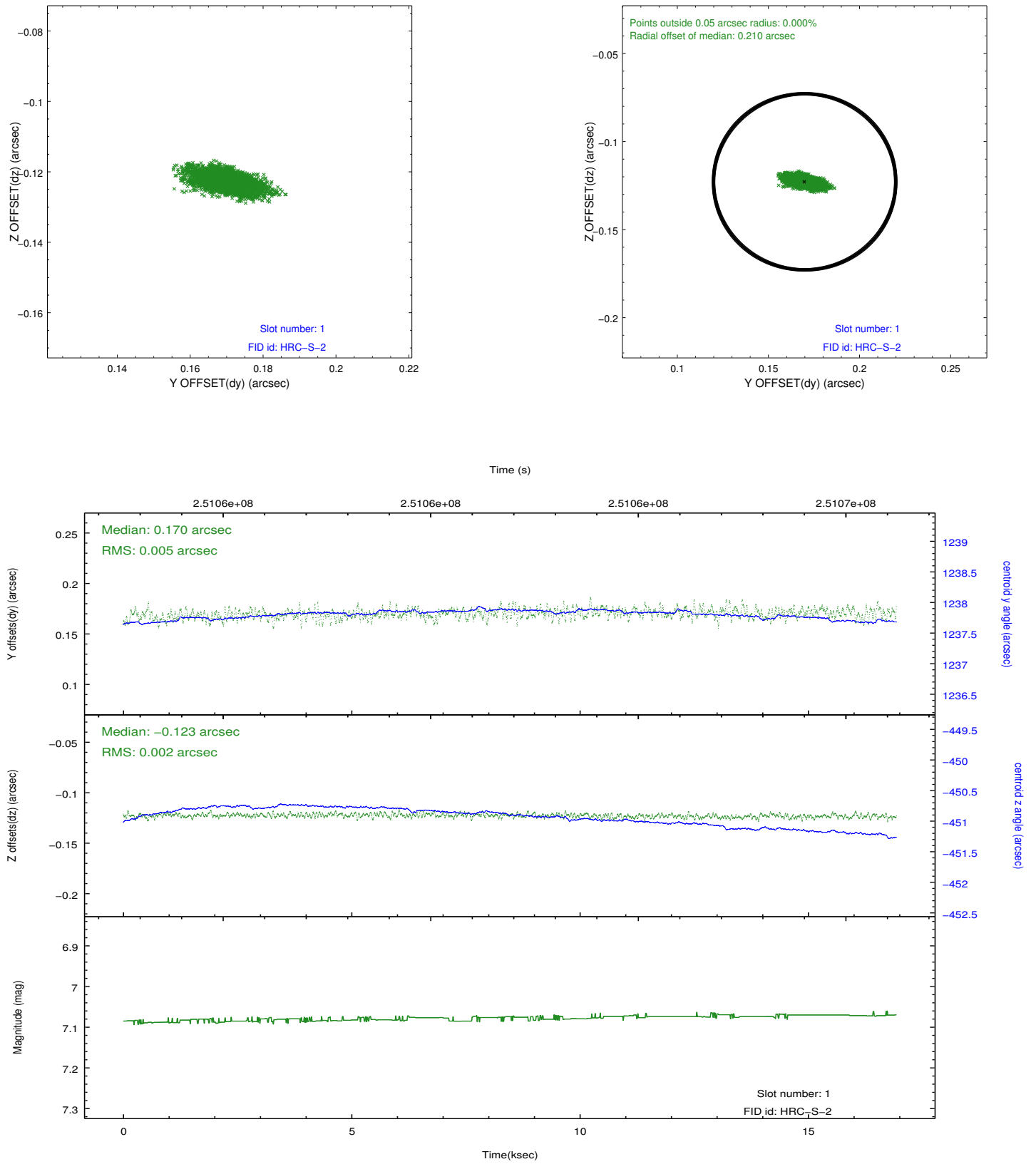


## 2.5 FID Slots

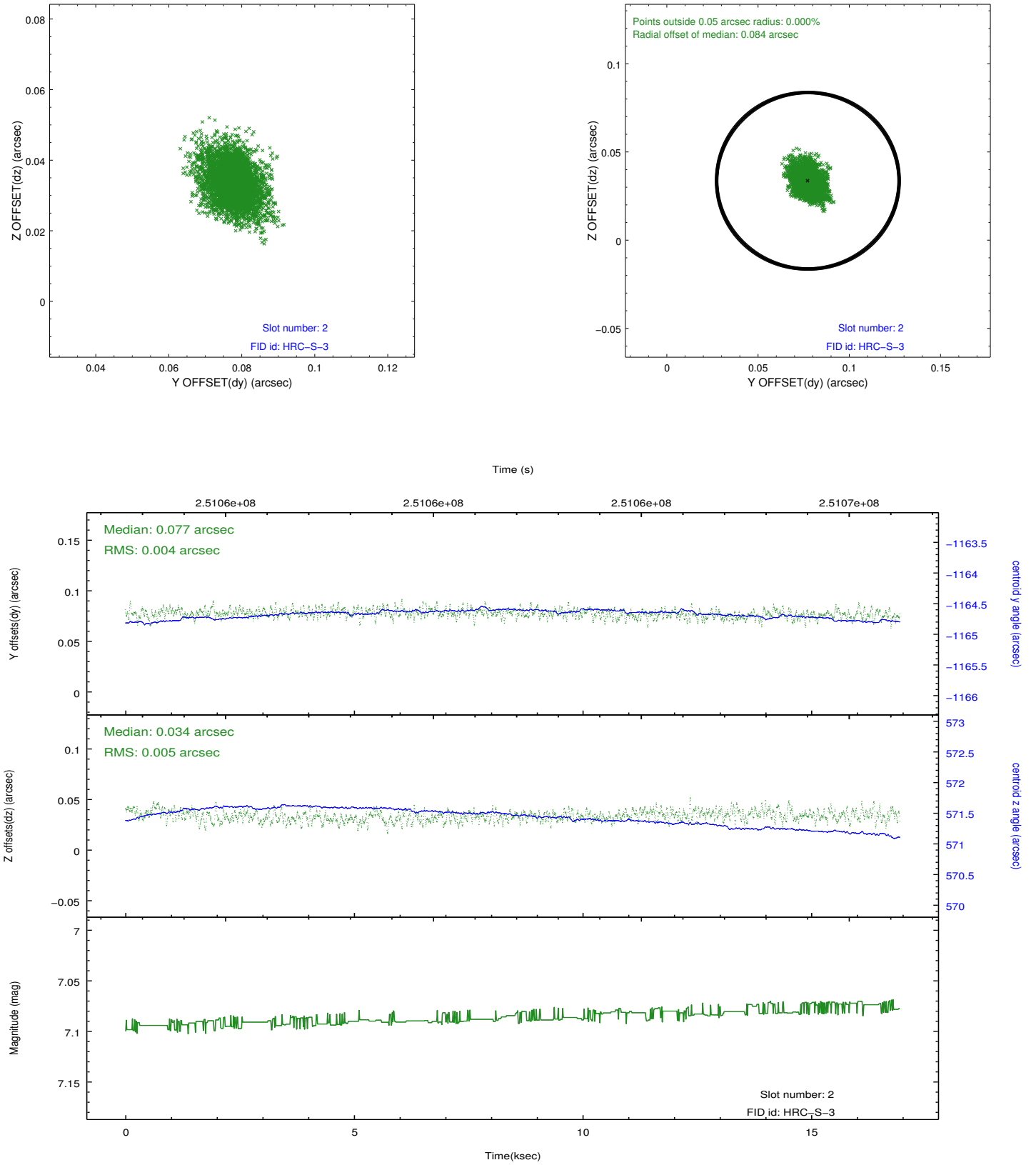
### 2.5.1 Slot 0



## 2.5.2 Slot 1

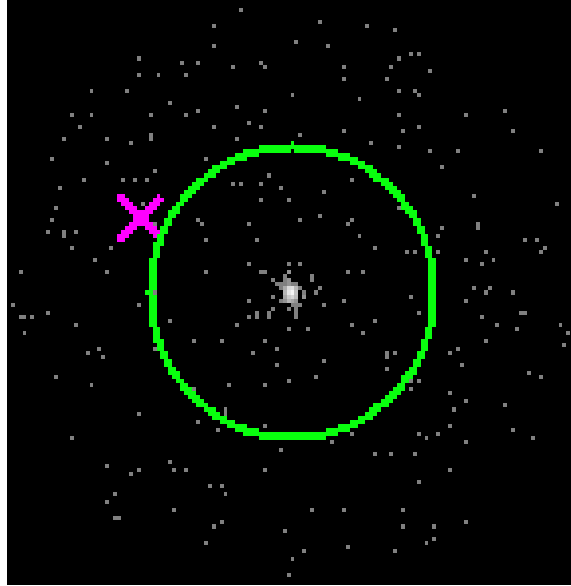


### 2.5.3 Slot 2

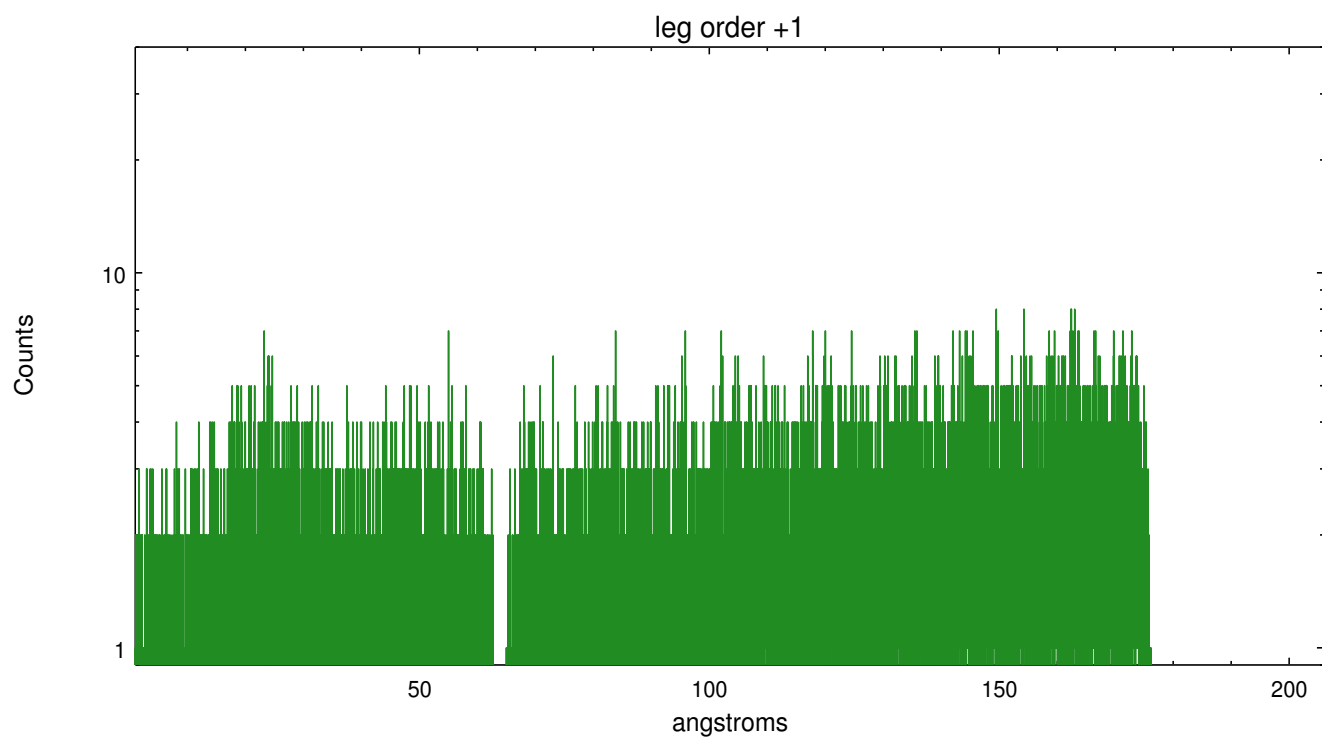
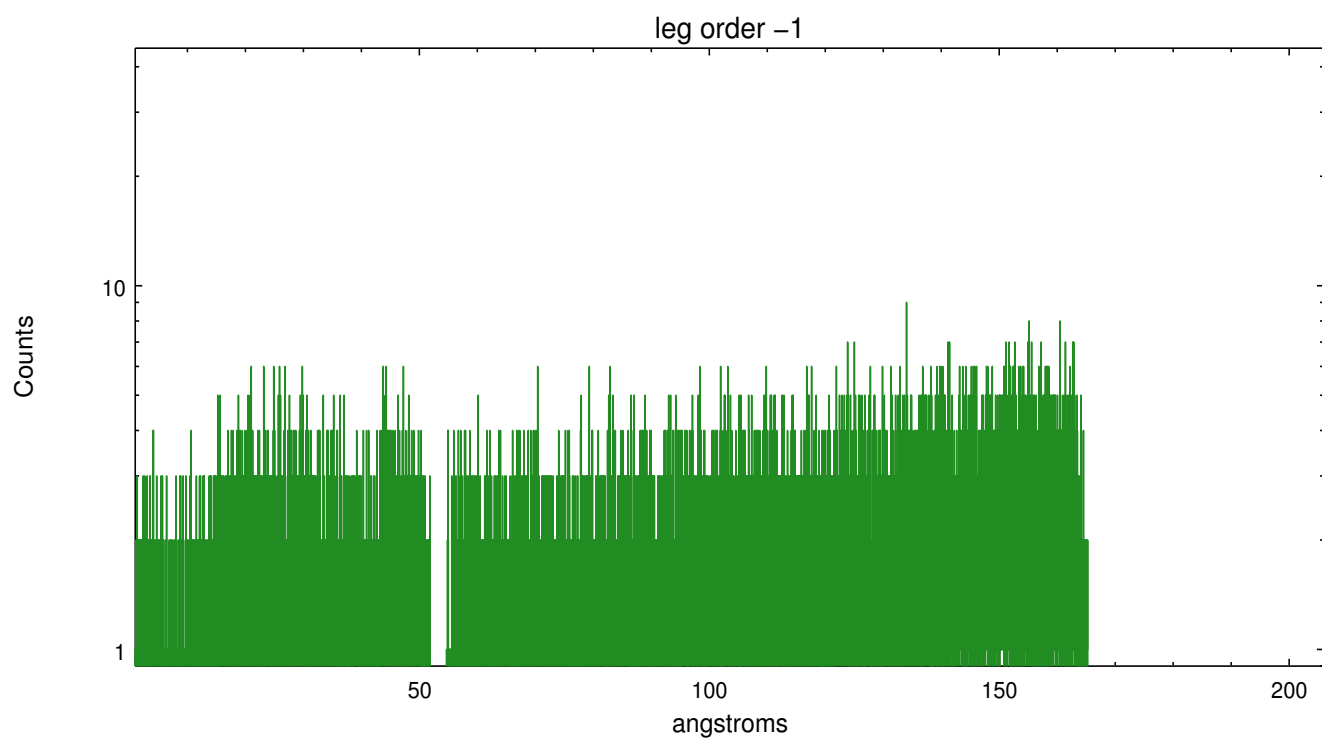


## 3 Gratings

### 3.1 LETG Arm



LETG Zero Order



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.08.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	16.2916

## A.2 Comments

An HRC anomaly resulted in about 200 sec of dead time during the first 5 ksec of the observation. The dead time is not included in the good time interval, and therefore is removed from the Level 2 event files. There is no indication that any other data in this observation are suspect.