

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 5584 - L2 Version 3  
Chandra X-Ray Center

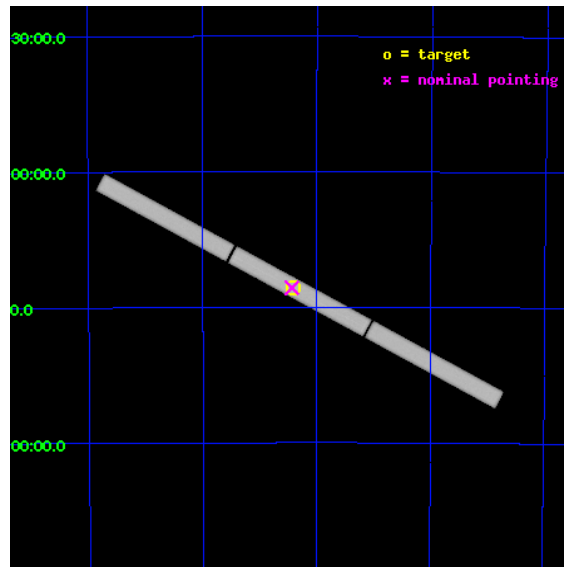
L2 Processing Date : Aug 10 2012

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# 1 Front

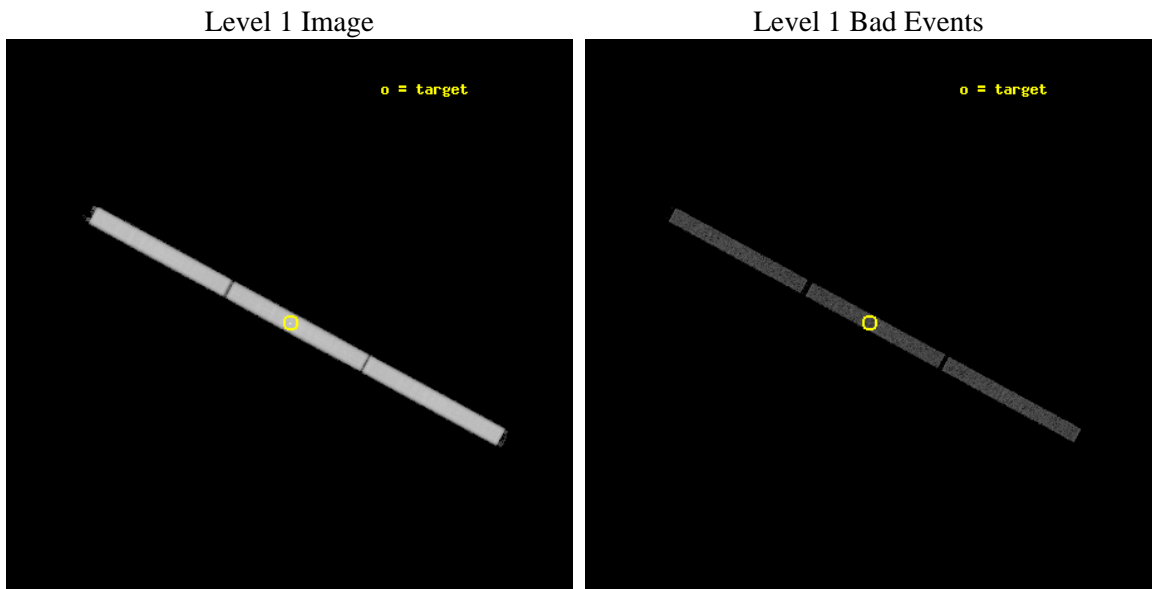
seq_num	500573	Sequence number
obs_id	5584	Observation id
title	Spectra of Neutron Stars with Strongly Magnetized Hydrogen Atmospheres	Proposal title
observer	Prof. Marten van Kerkwijk	Principal investigator
object	RX J0720.4-3125	Source name
ra_targ	110.104167	Observer's specified target RA [deg]
dec_targ	-31.430611	Observer's specified target Dec [deg]
ra_nom	110.10903840918	Nominal RA [deg]
dec_nom	-31.428397387731	Nominal Dec [deg]
roll_nom	28.269878628578	Nominal Roll [deg]
revision	3	Processing version of data
ontime	14187.281906515	[s]
livetime	14077.595393422	Ontime multiplied by DTCOR
l2events	898992	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	14000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	14187.281906515	[s]
caldbver	4.5.1.1	&#160	l1events	1308337	Number of level 1 events
date	2012-08-10T19:30:54	Date and time of file creation			
revision	3	Processing version of data			

## 2.1.3 Events

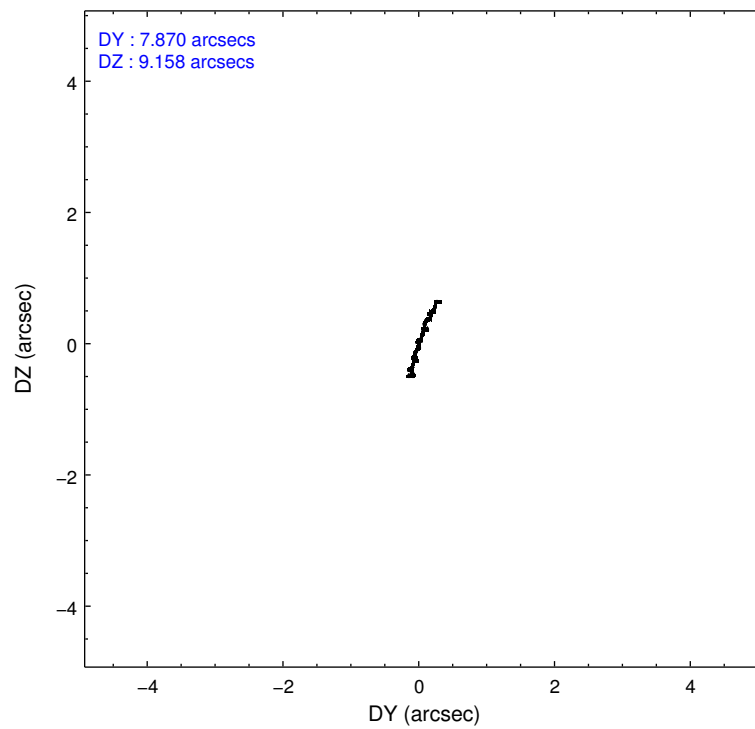
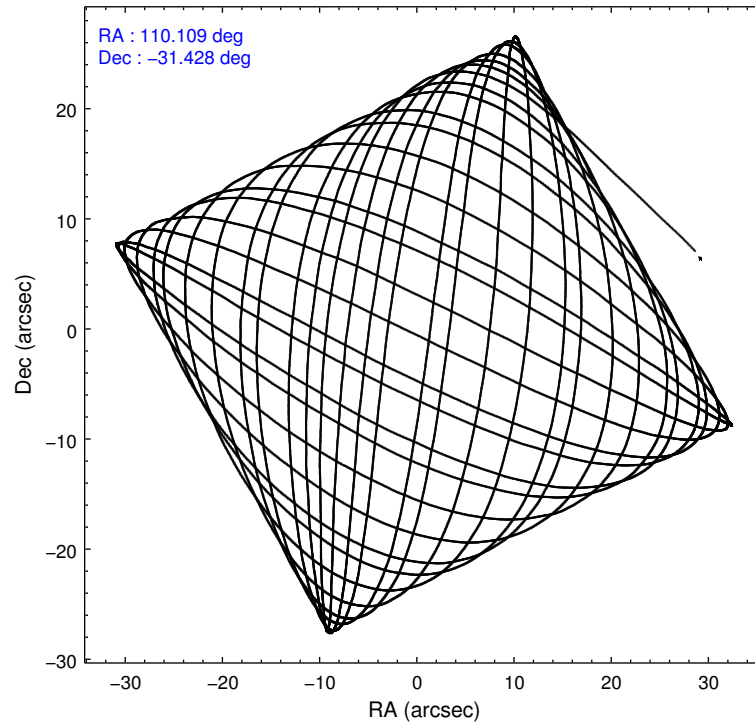
Level 1 Events

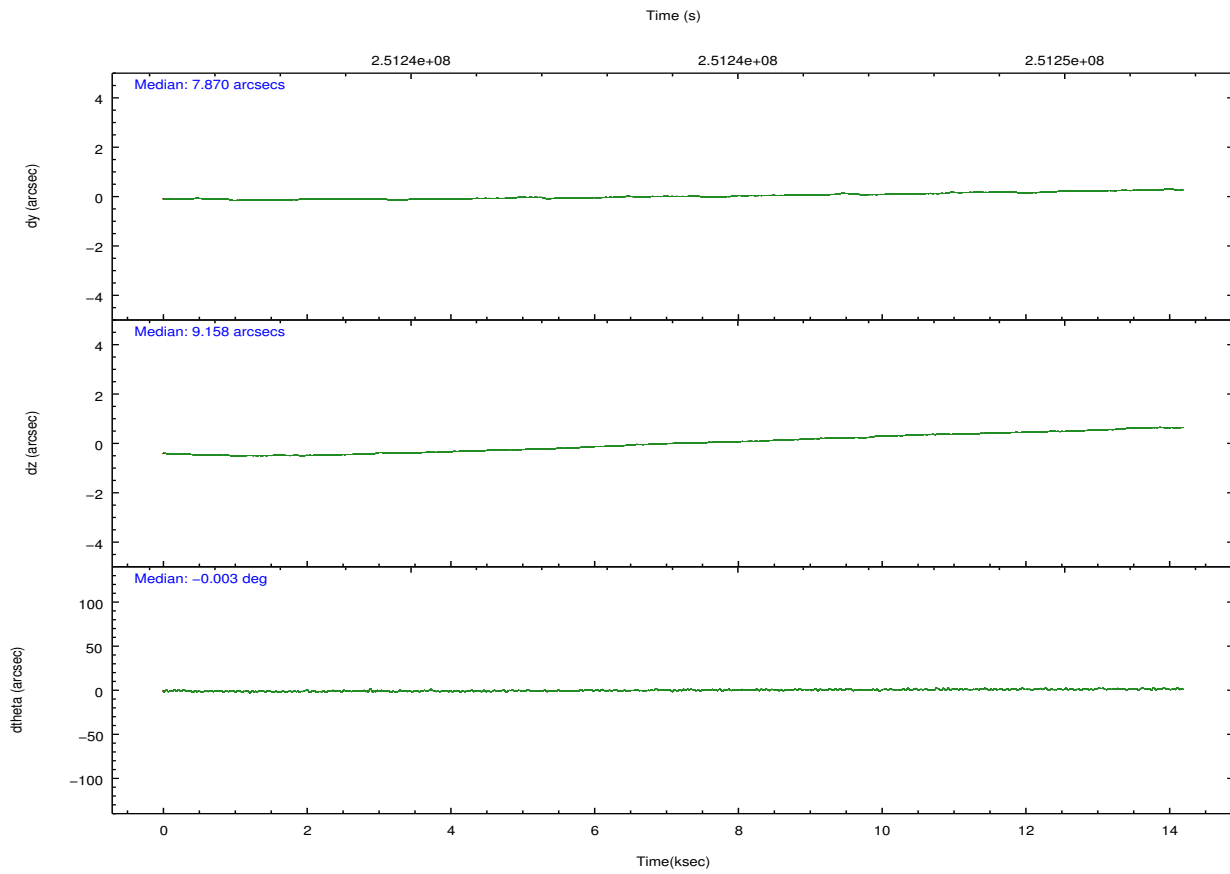
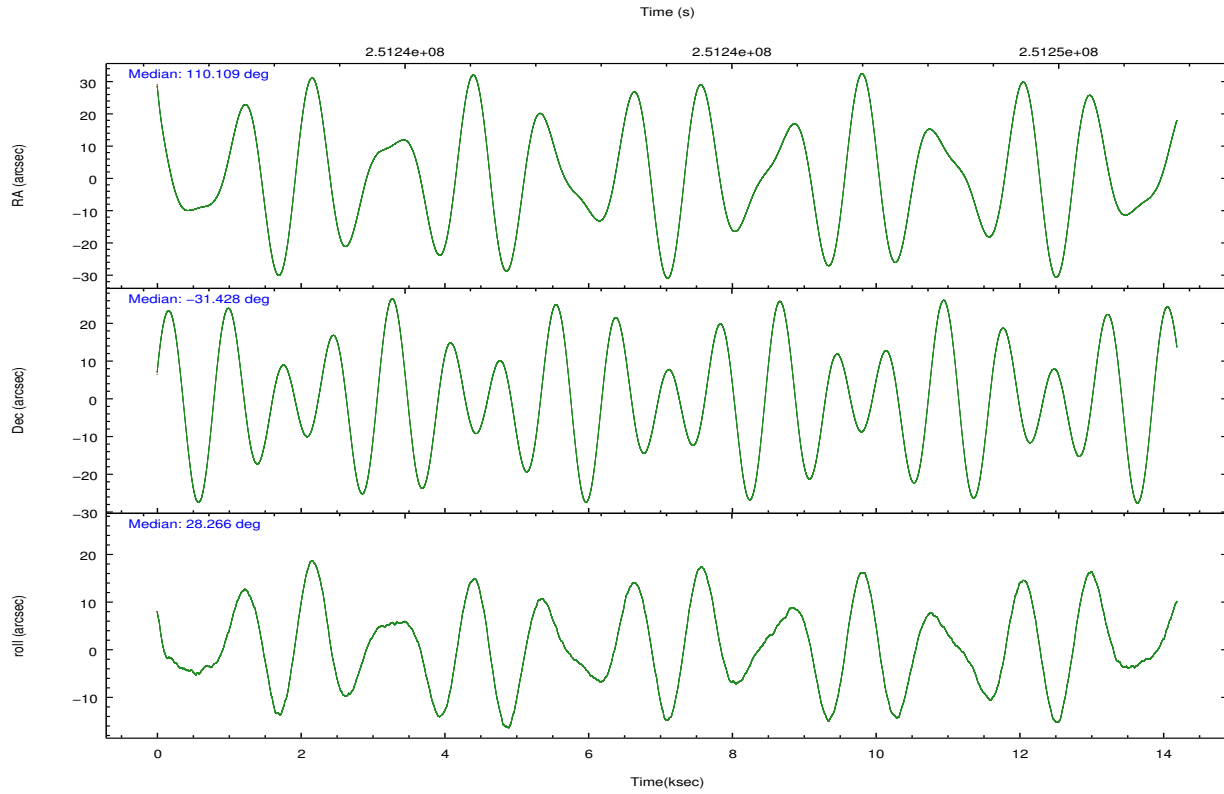
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	437424	433367	437546
rejected events	33259	32215	32710
rejected %	7%	7%	7%

## 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	110.1090384091798			
[deg] Pointing Dec	-31.453548	-31.42839738773123			
[deg] Pointing Roll	28.194106	28.26987862857781			
[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)	251237098.184000	251236309.04676			
Observation start date	2005-12-17T20:03:54	2005-12-17T19:51:49			
[s] Observation end time (MET)	251251098.184000	251251581.03497			
Observation end date	2005-12-17T23:57:14	2005-12-18T00:06:21			

## 2.3 Aspect



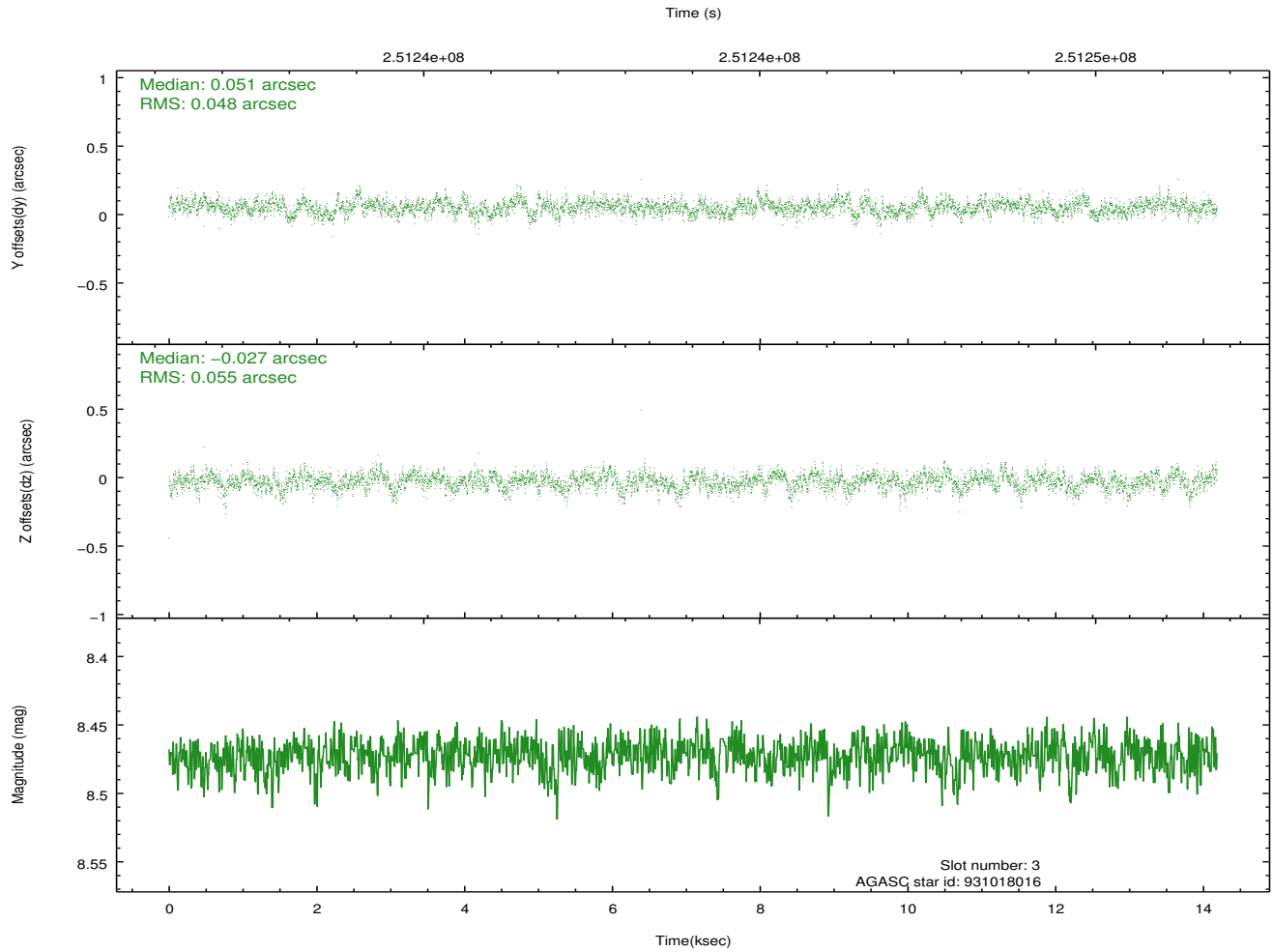
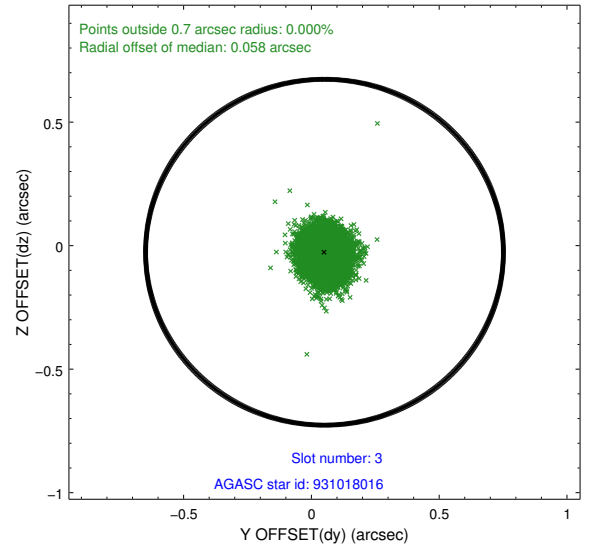
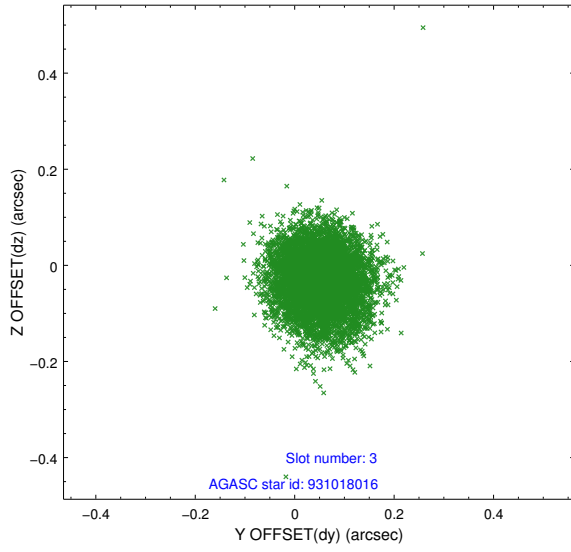


### Slot Statistics

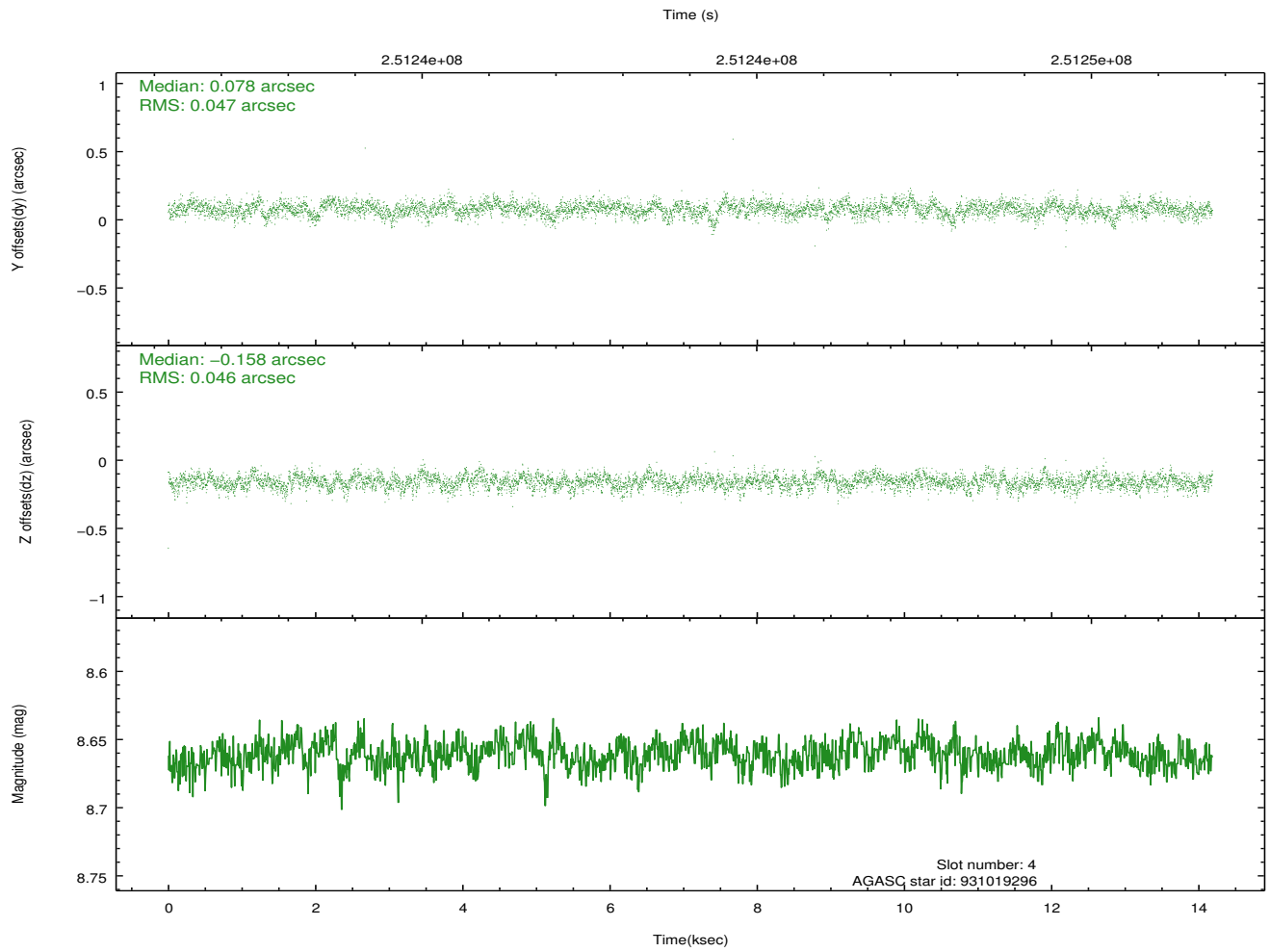
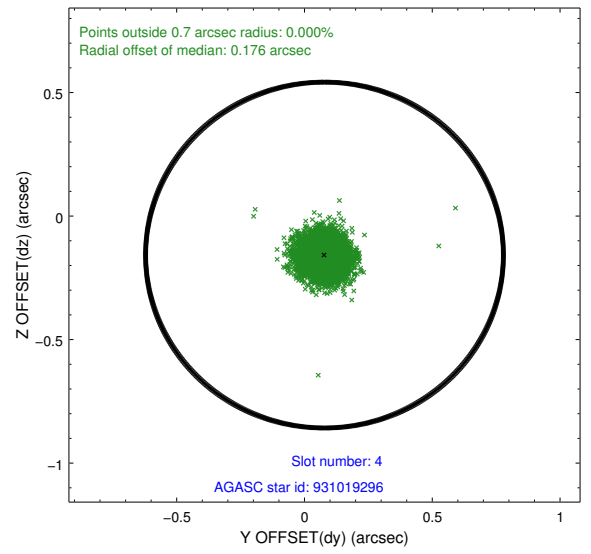
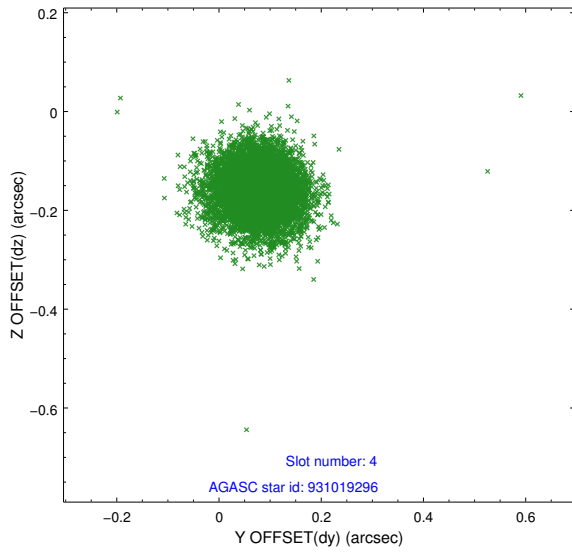
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-S-1	7.07	3461	0.142	-0.195	0.020	0.029	0.000000	0.000000	-1162.06	-457.84
1	FID	HRC-S-2	7.06	3461	0.165	-0.120	0.005	0.010	0.000000	0.000000	1237.31	-450.57
2	FID	HRC-S-3	7.07	3461	0.083	0.013	0.020	0.029	0.000000	0.000000	-1164.47	571.76
3	GUIDE	931018016	8.47	6903	0.051	-0.027	0.077	0.125	109.684535	-31.226562	-722.82	1311.73
4	GUIDE	931019296	8.66	6918	0.078	-0.158	0.068	0.112	109.471771	-31.694370	-2089.10	129.49
5	GUIDE	931022960	8.95	6917	0.087	0.170	0.075	0.122	109.733092	-31.864448	-1669.23	-785.73
6	GUIDE	931146200	8.97	6918	-0.138	0.078	0.074	0.122	110.586199	-31.643611	1007.56	-1320.56
7	GUIDE	931160352	8.62	6918	-0.078	-0.060	0.075	0.119	110.268138	-30.864891	1478.54	1611.28

## 2.4 Star Slots

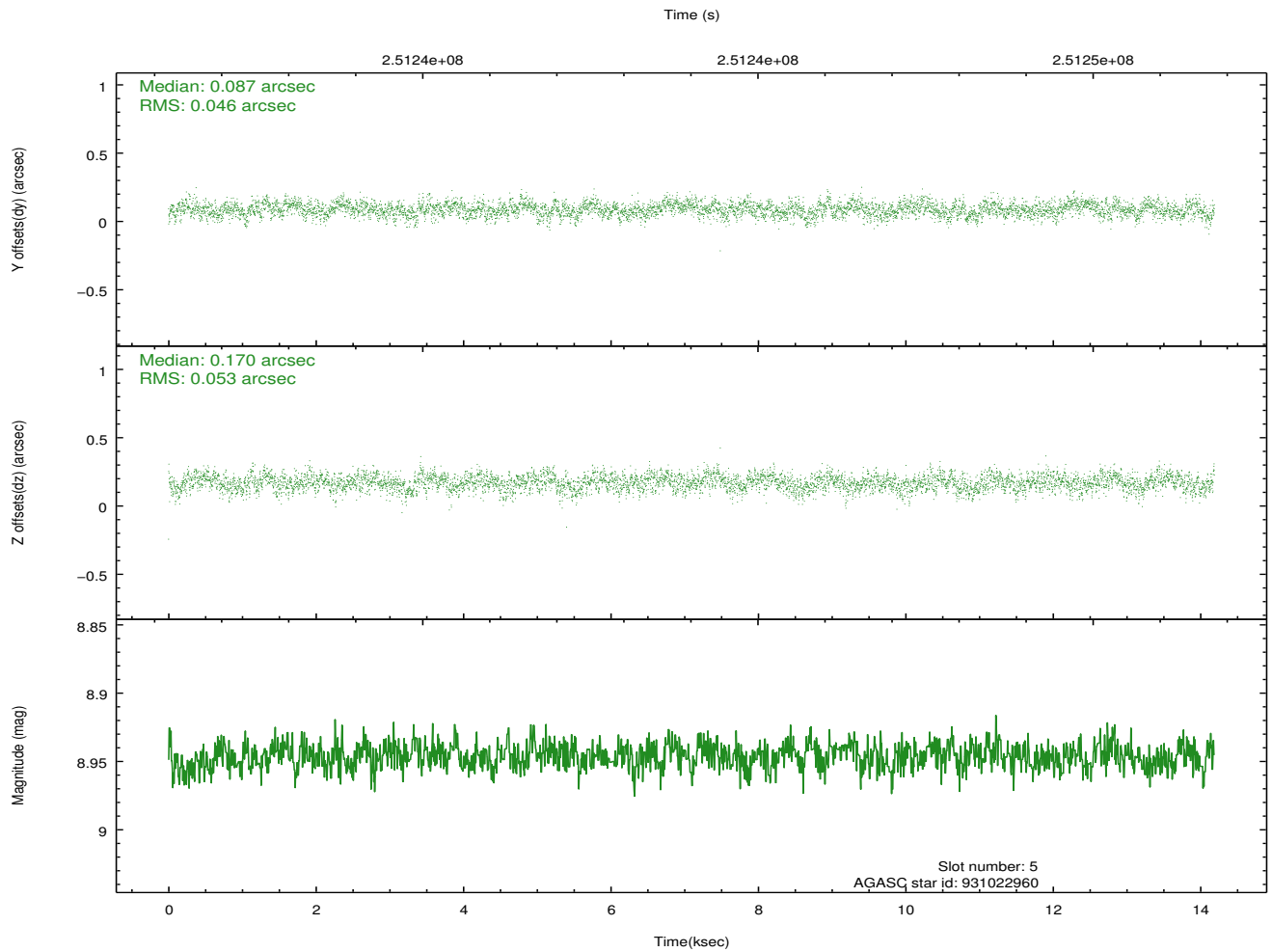
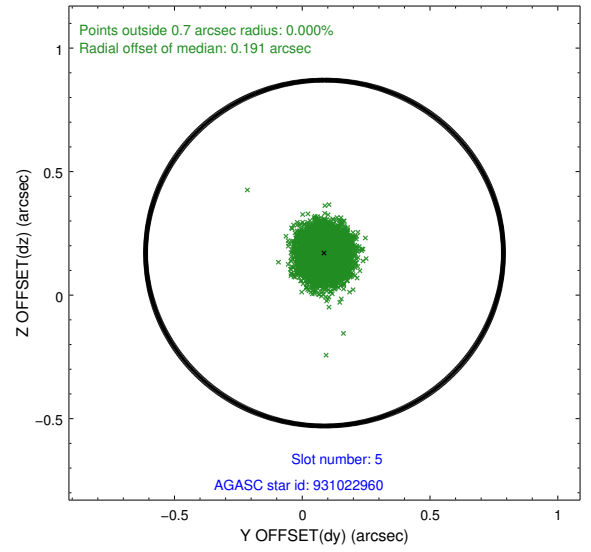
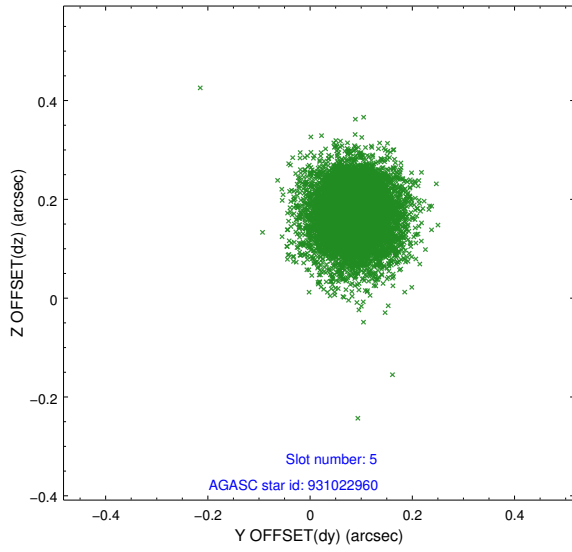
### 2.4.1 Slot 3



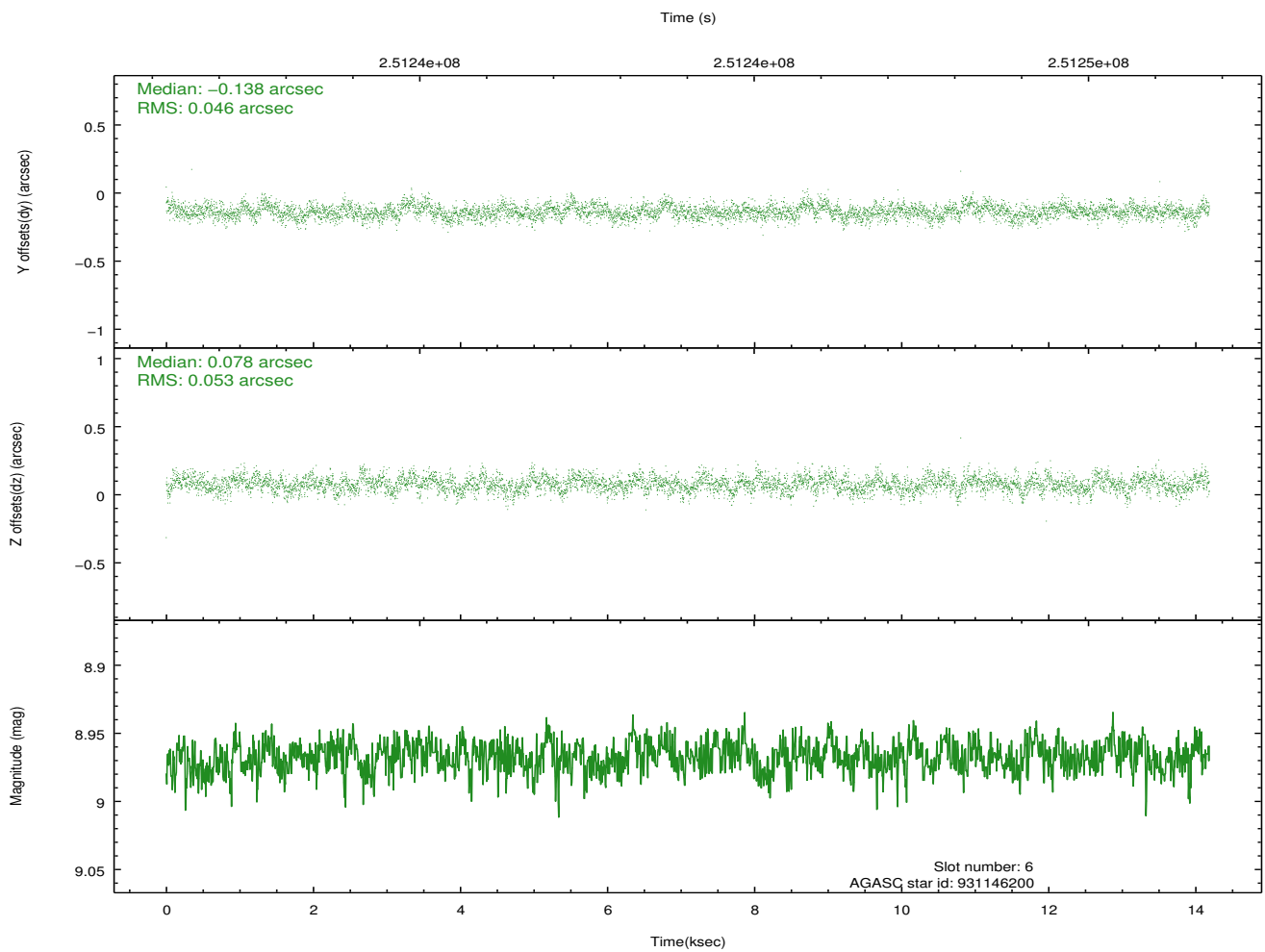
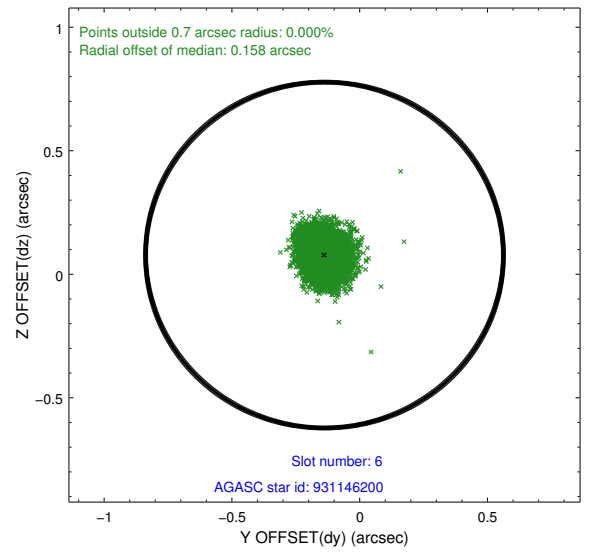
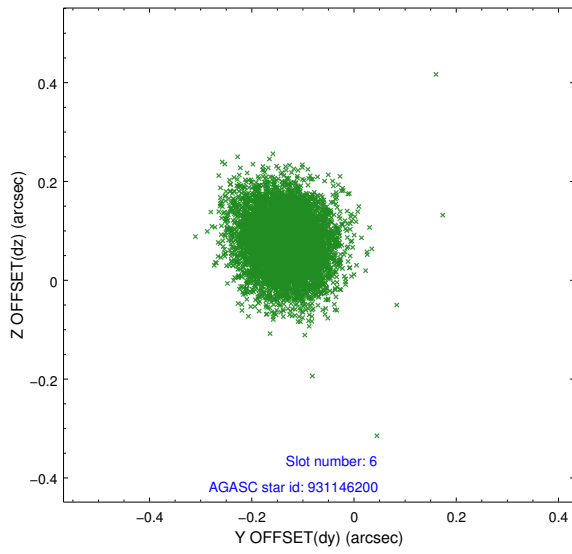
### 2.4.2 Slot 4



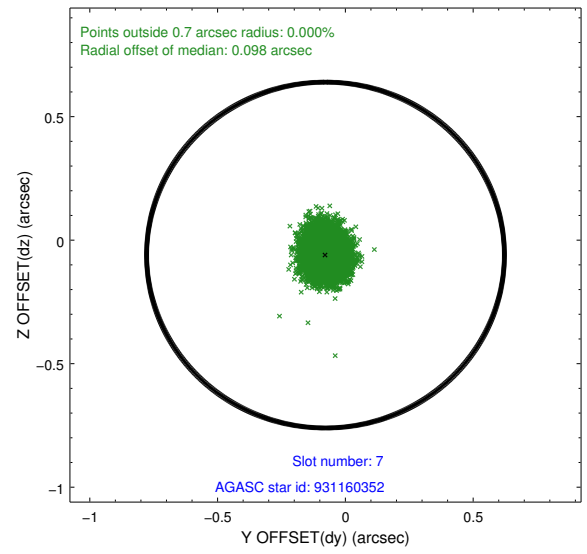
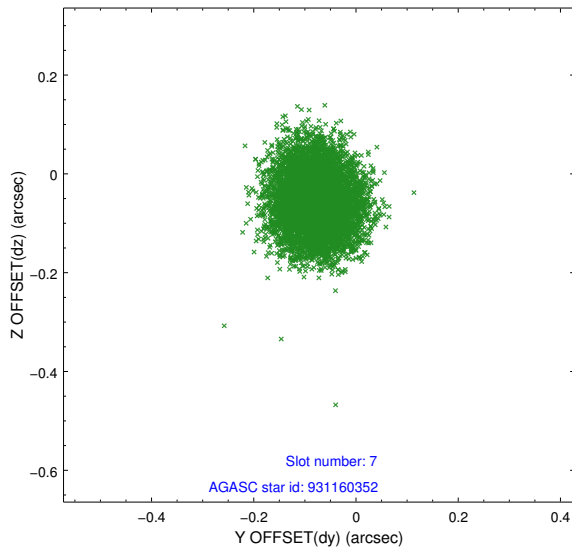
### 2.4.3 Slot 5



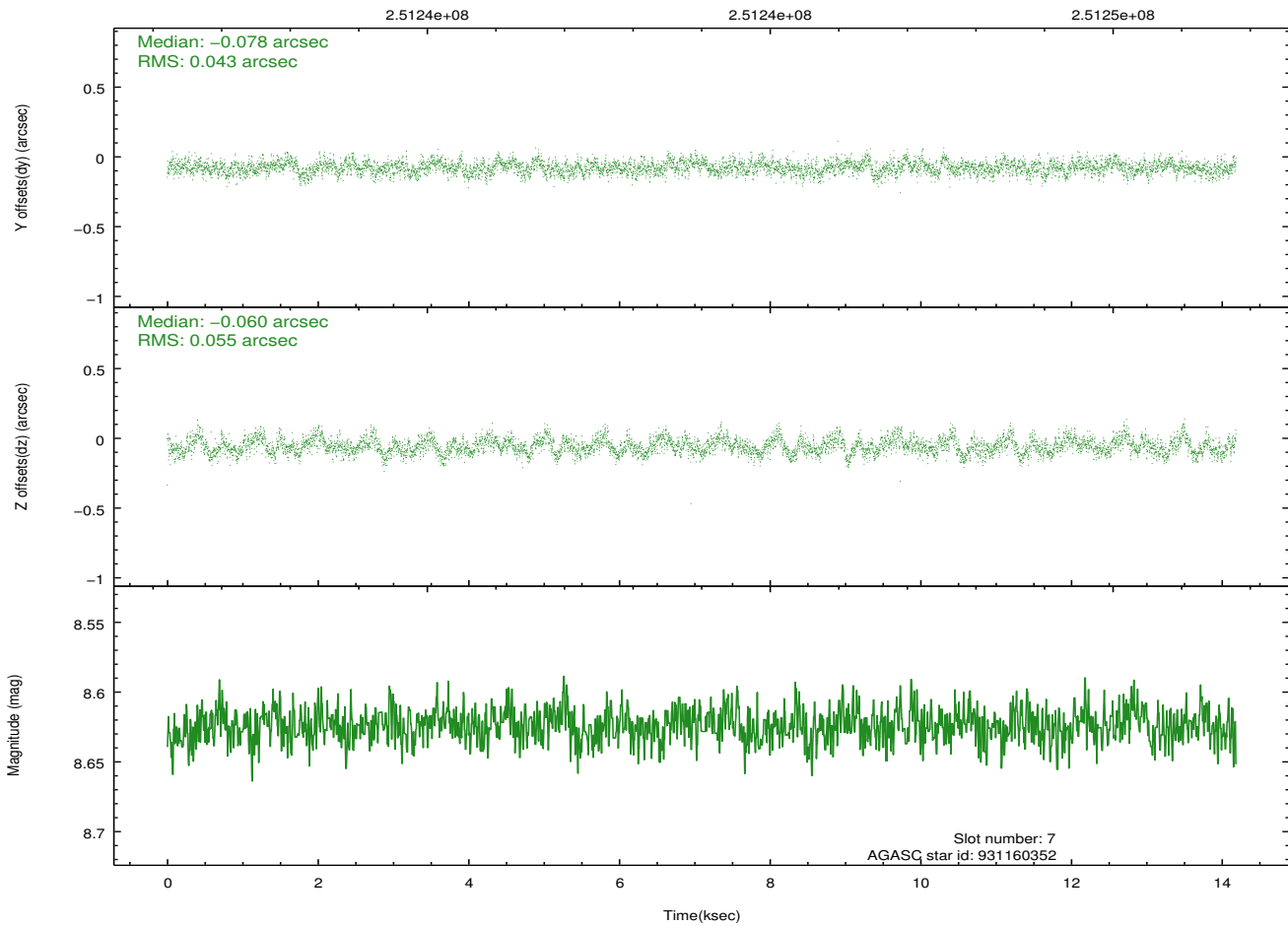
### 2.4.4 Slot 6



## 2.4.5 Slot 7

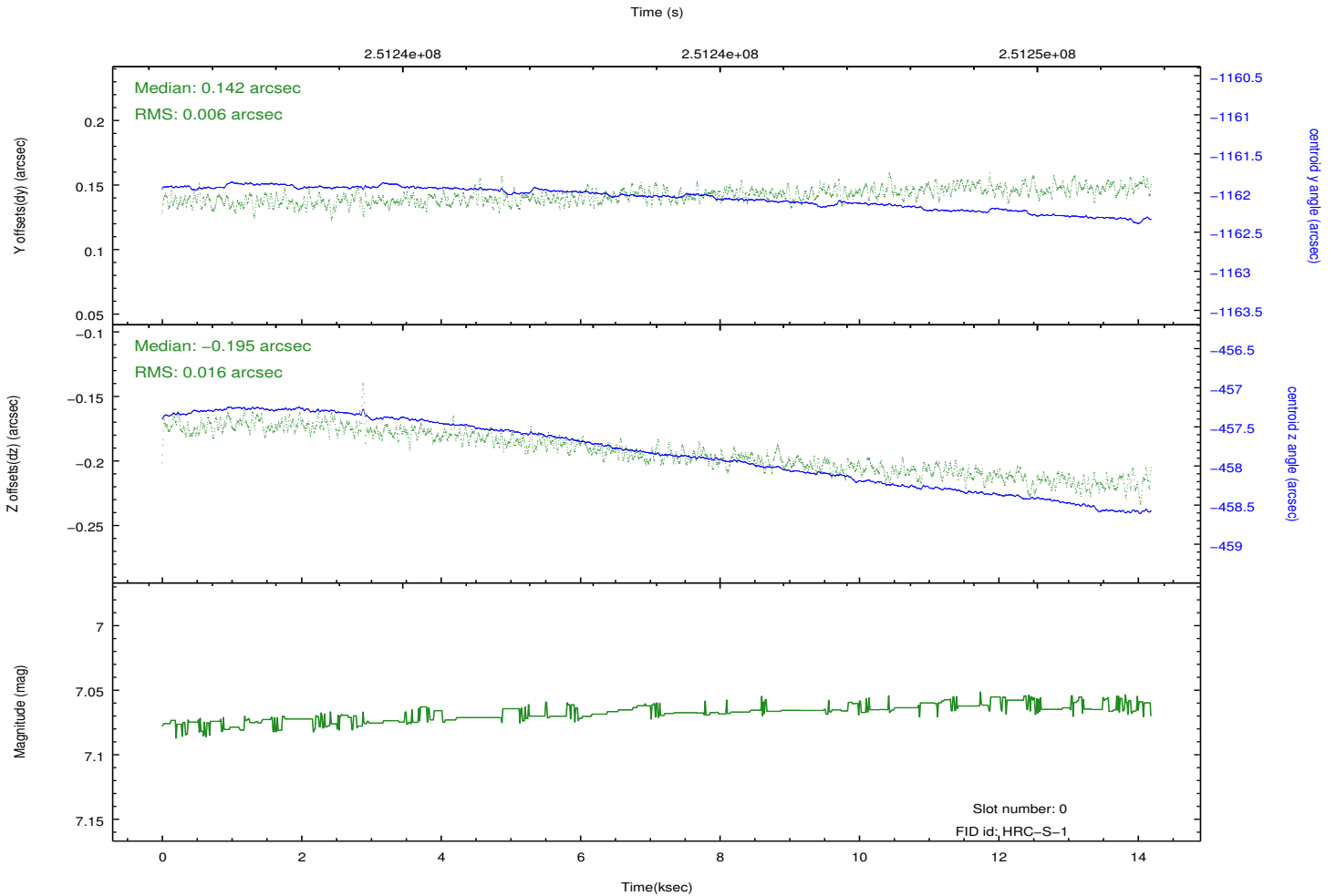
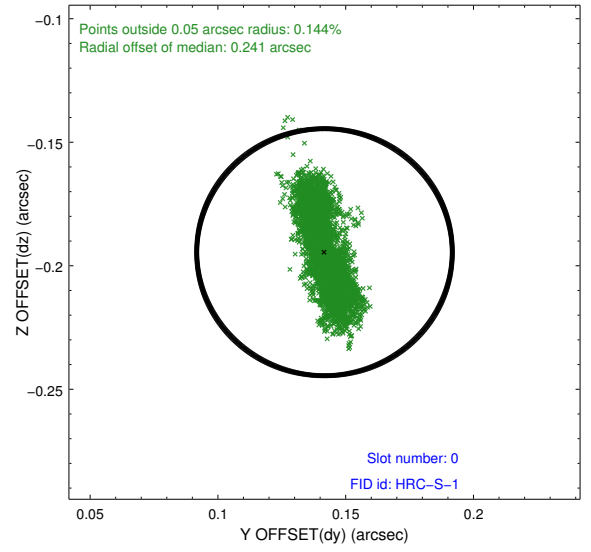
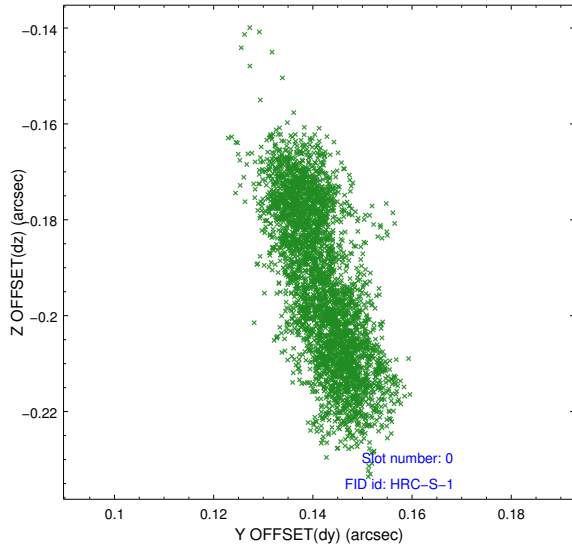


Time (s)

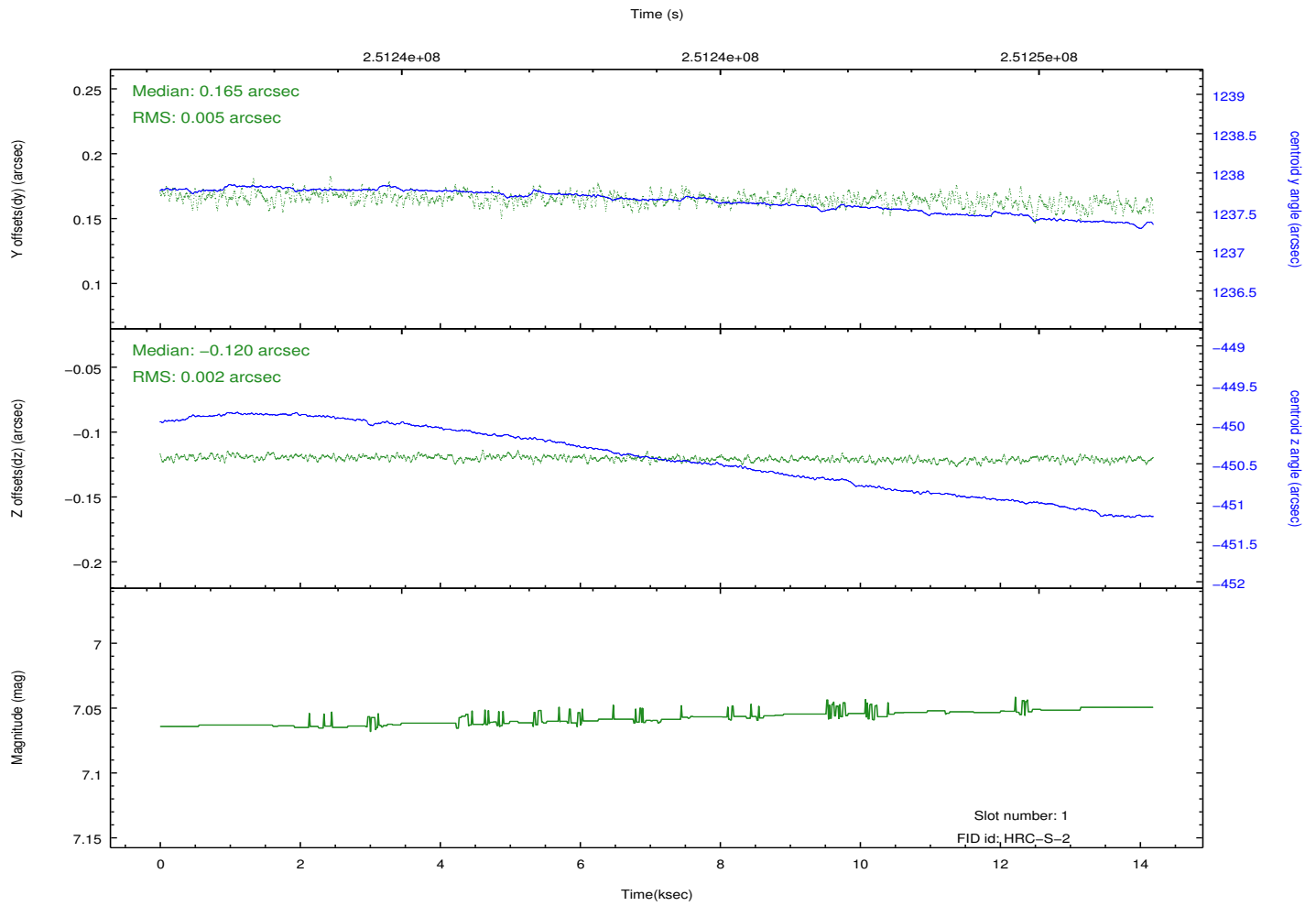
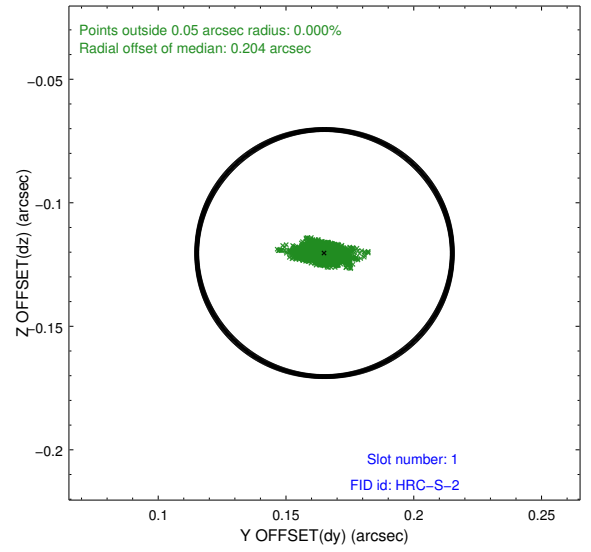
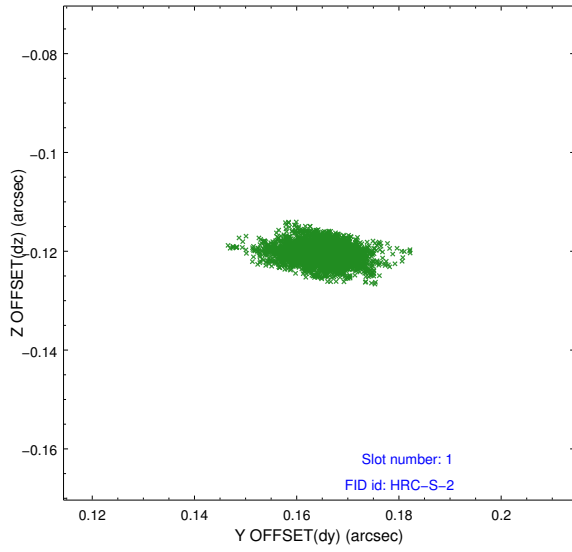


## 2.5 FID Slots

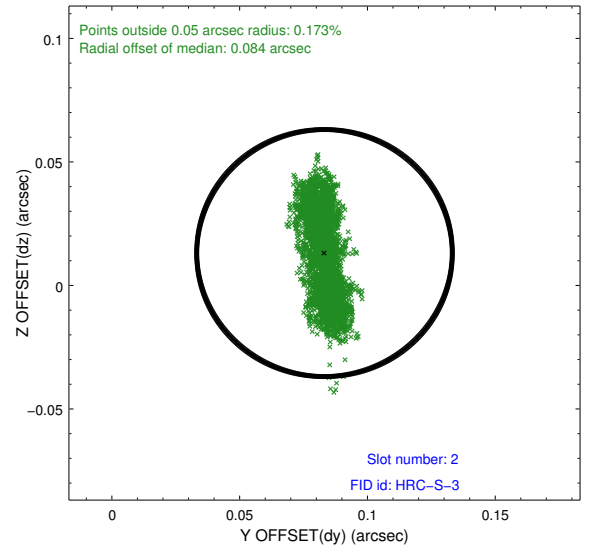
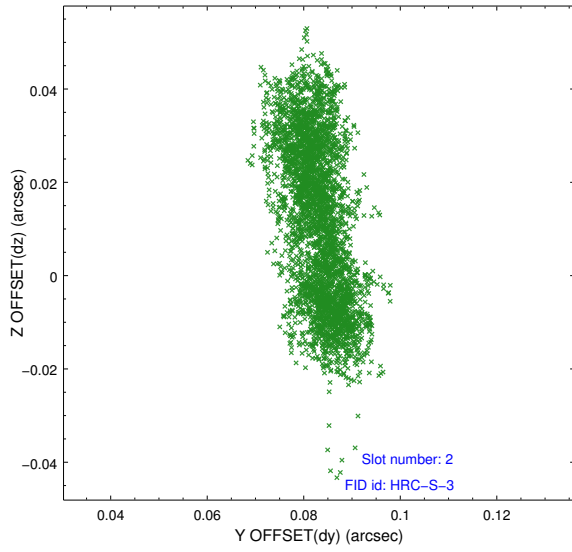
### 2.5.1 Slot 0



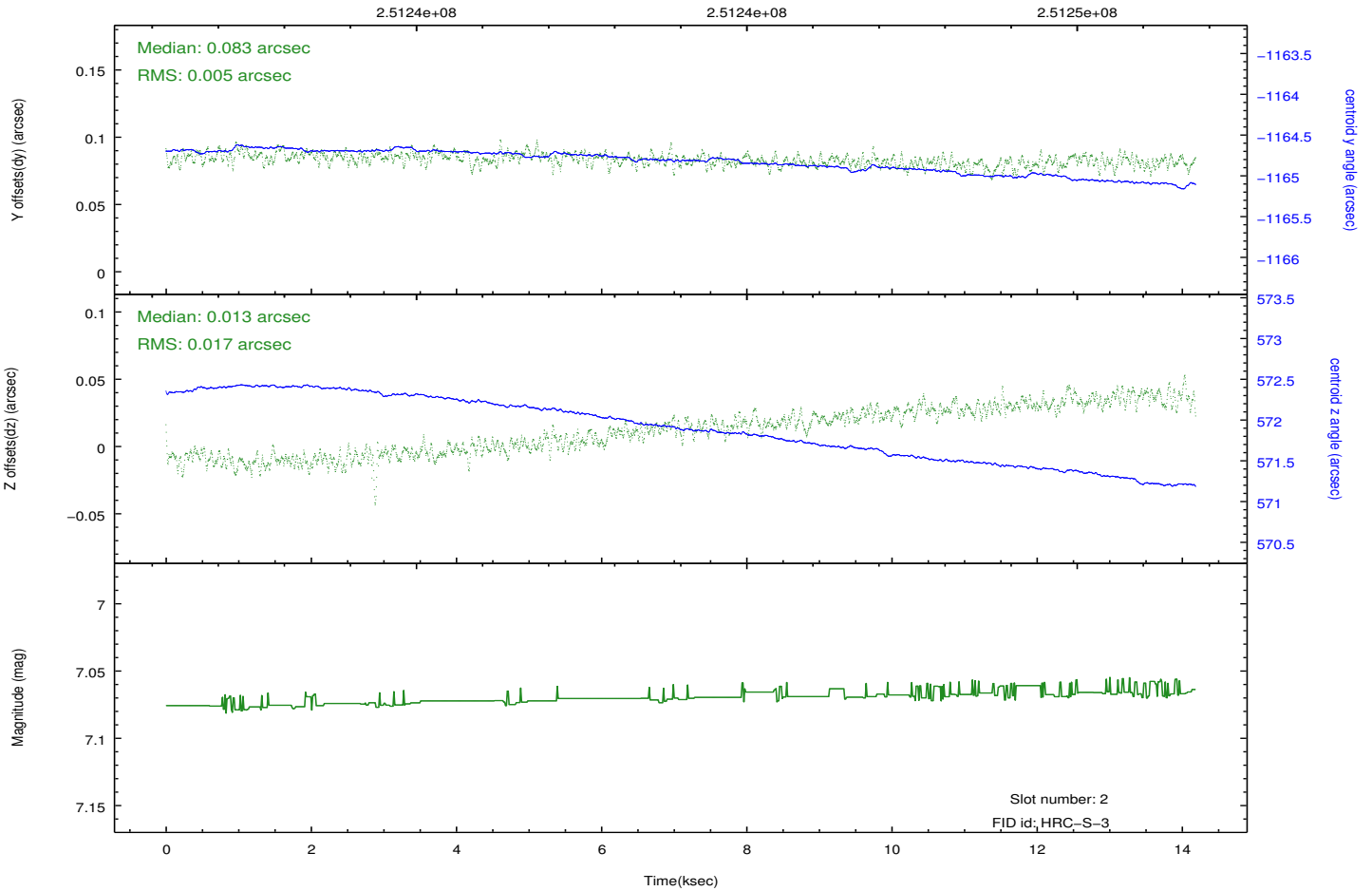
## 2.5.2 Slot 1



### 2.5.3 Slot 2

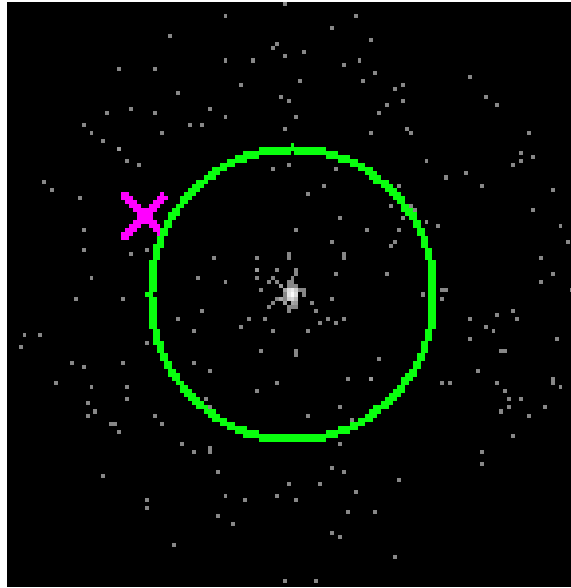


Time (s)

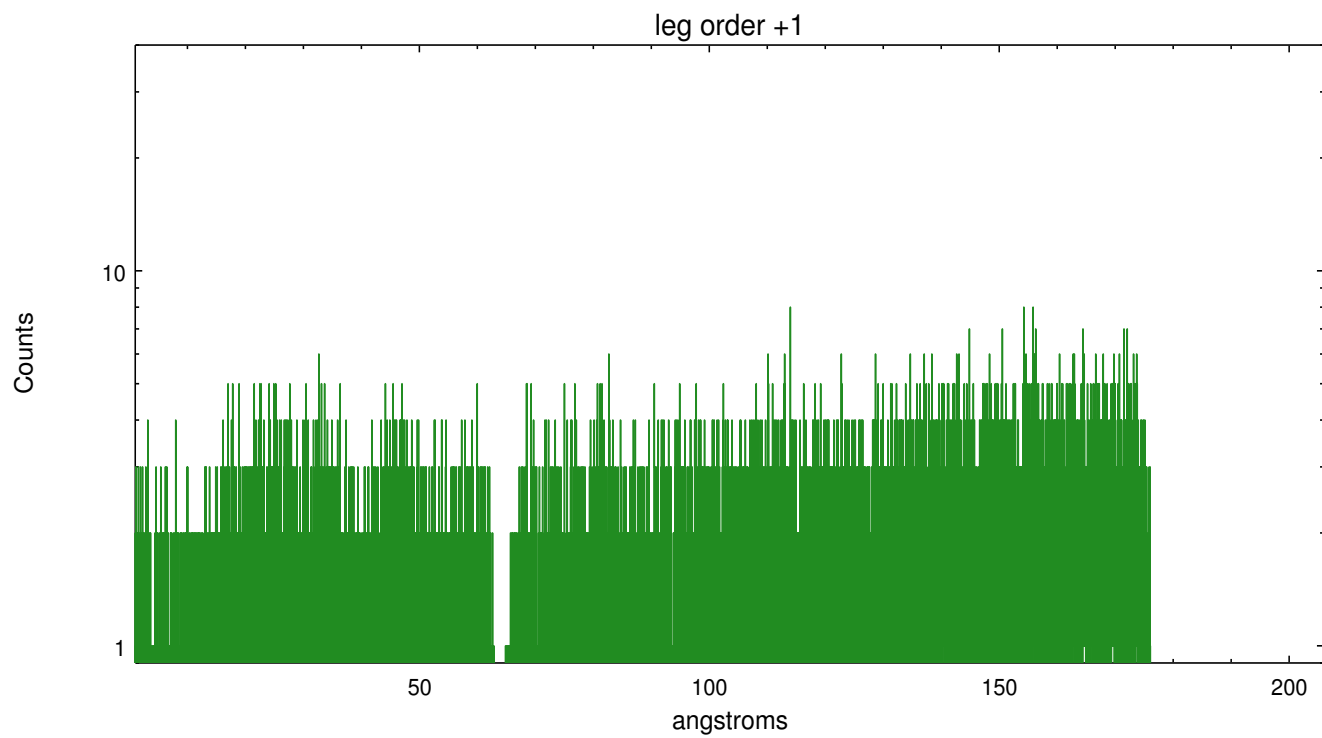
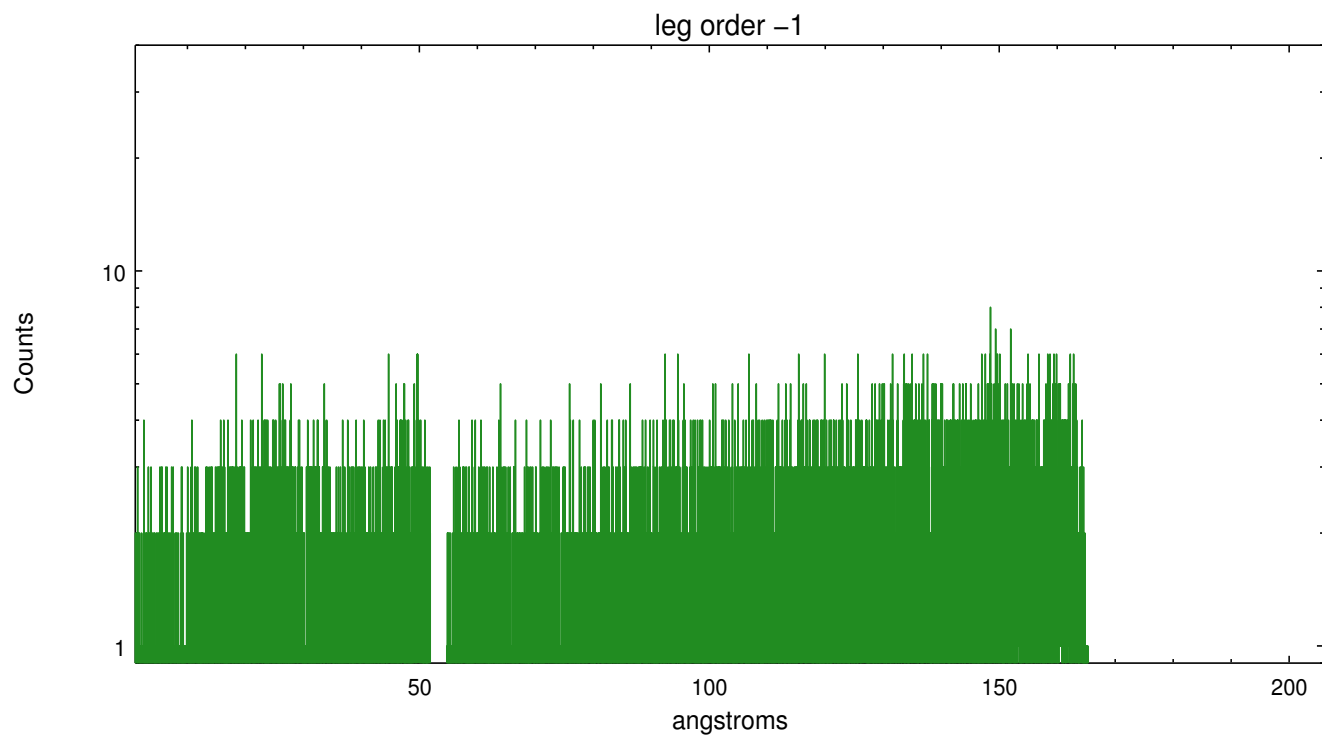


### 3 Gratings

#### 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	14.18728

## A.2 Comments