

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 1013 - L2 Version 4  
Chandra X-Ray Center

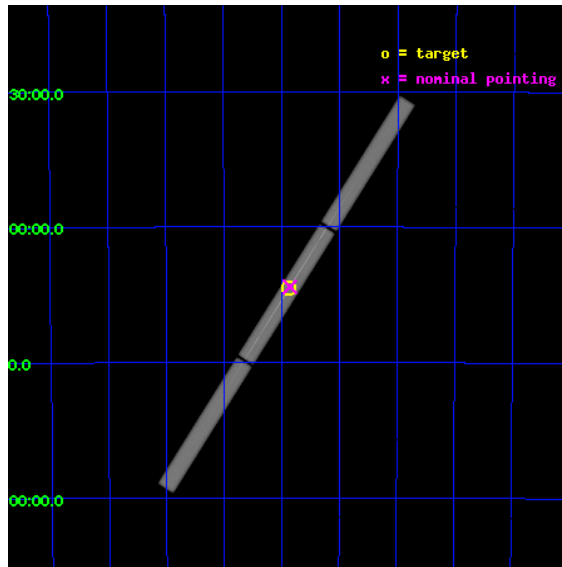
L2 Processing Date : Sep 15 2012

## 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

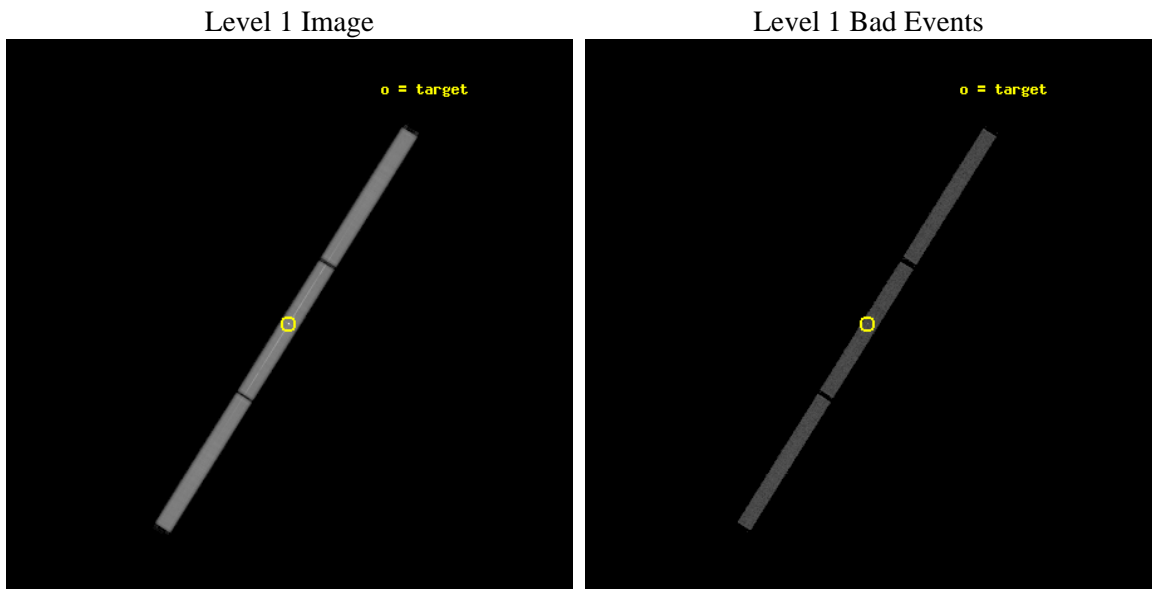
seq_num	390005	Sequence number
obs_id	1013	Observation id
title	GRATINGS CALIBRATION OBSERVATIONS OF PKS2155-304	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	PKS2155-304	Source name
ra_targ	329.716667	Observer's specified target RA [deg]
dec_targ	-30.225556	Observer's specified target Dec [deg]
ra_nom	329.71389910196	Nominal RA [deg]
dec_nom	-30.221423436151	Nominal Dec [deg]
roll_nom	122.20177997834	Nominal Roll [deg]
revision	4	Processing version of data
ontime	26832.707289293	[s]
livetime	26628.062346082	Ontime multiplied by DTCOR
l2events	1722778	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



## 2.1.2 Parameters

obi_num	1	Obi number	sched_exp_time	27000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	26832.707289293	[s]
caldbver	4.5.1.1	&#160	l1events	2351934	Number of level 1 events
date	2012-09-14T21:02:09	Date and time of file creation			
revision	4	Processing version of data			

## 2.1.3 Events

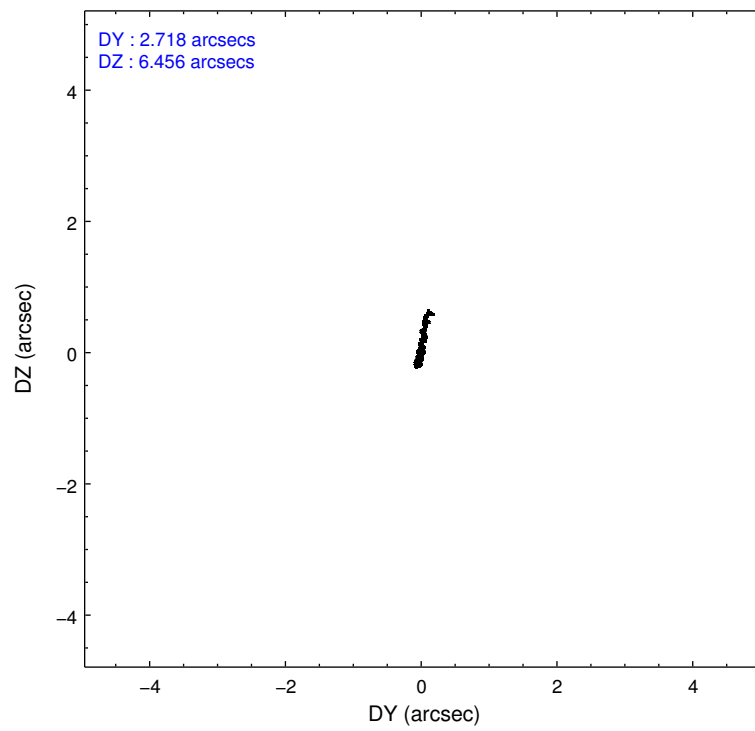
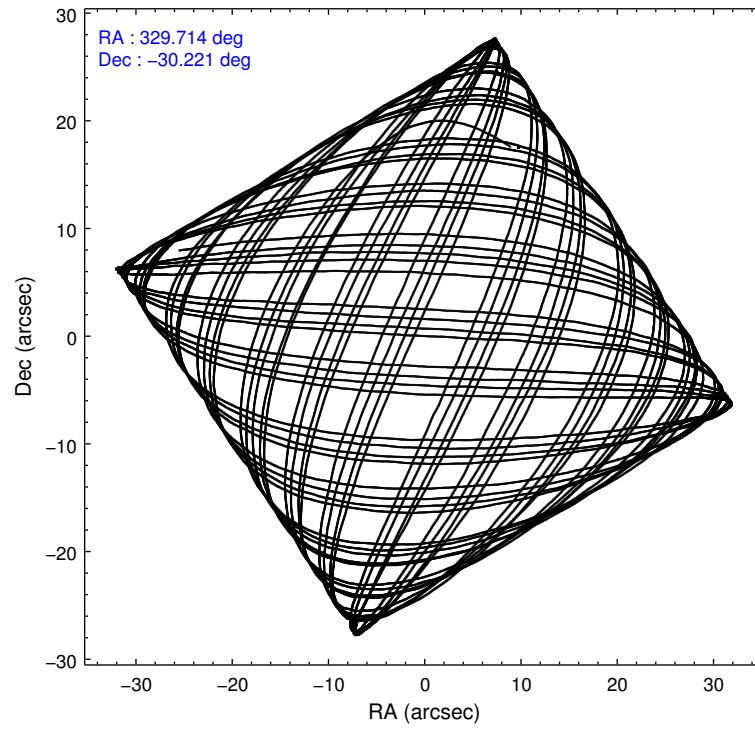
Level 1 Events

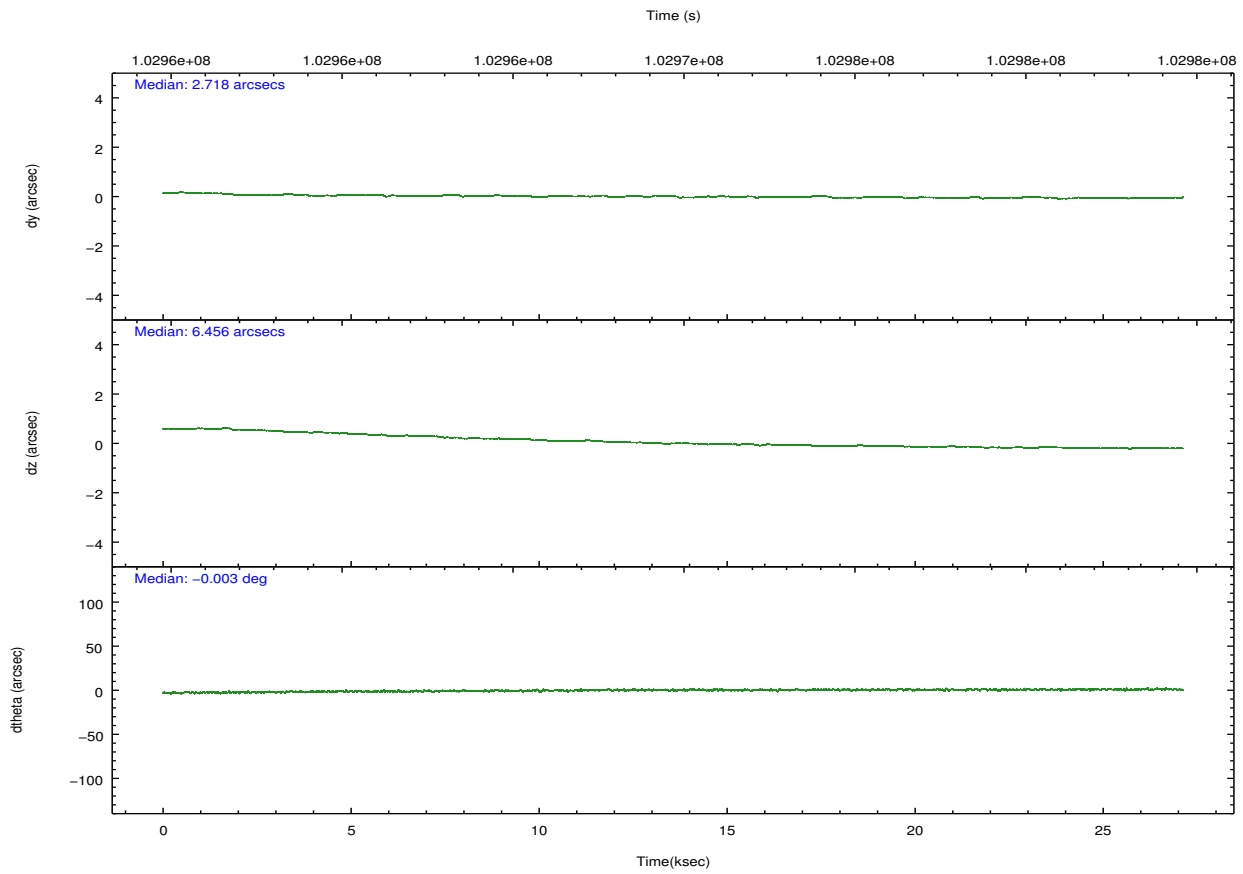
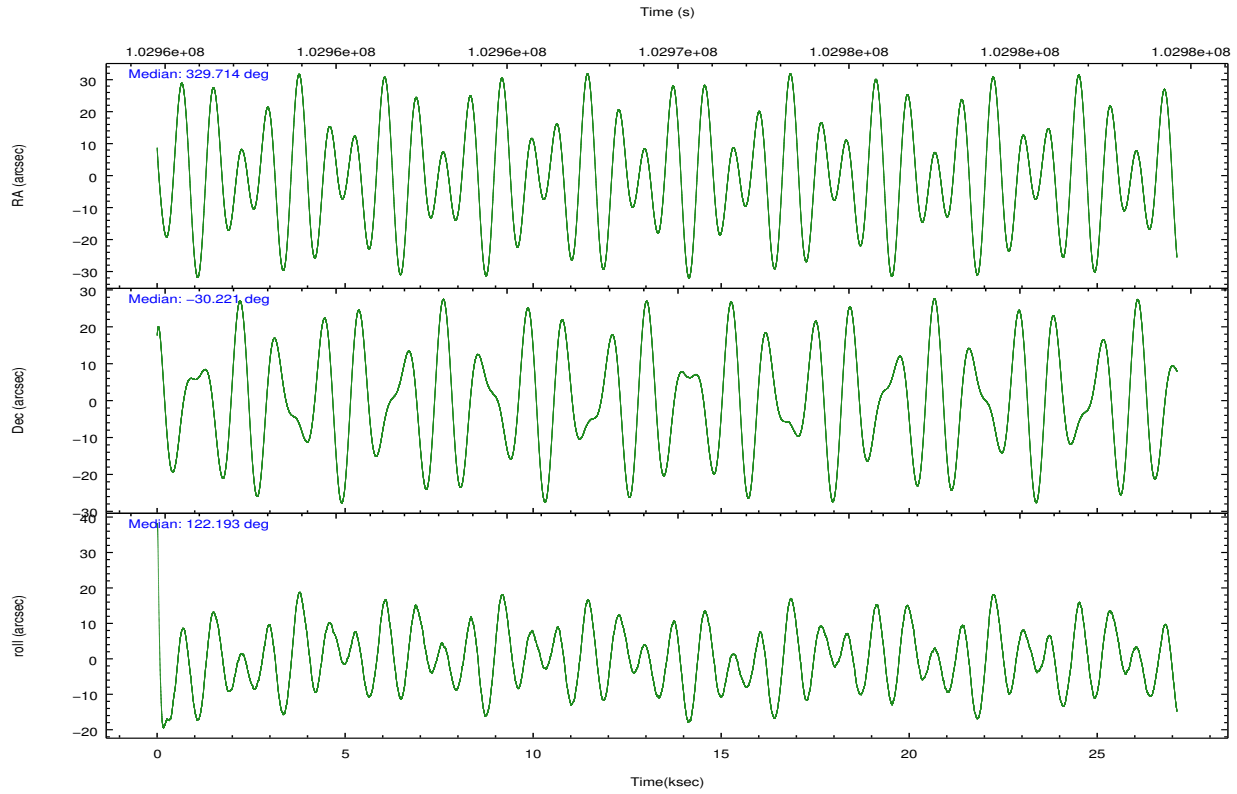
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	765079	847522	739333
rejected events	36256	33109	33464
rejected %	4%	3%	4%

## 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	329.743927	329.7138991019589			
[deg] Pointing Dec	-30.233594	-30.22142343615058			
[deg] Pointing Roll	122.149541	122.2017799783353			
[s] Window start time (MET)	99792064.184000	99792064.184000			
[s] Window stop time (MET)	105148864.184000	105148864.184000			
[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)	102956240.184000	102955192.76978			
Observation start date	2001-04-06T14:56:16	2001-04-06T14:39:52			
[s] Observation end time (MET)	102983240.184000	102984263.30841			
Observation end date	2001-04-06T22:26:16	2001-04-06T22:44:23			

## 2.3 Aspect



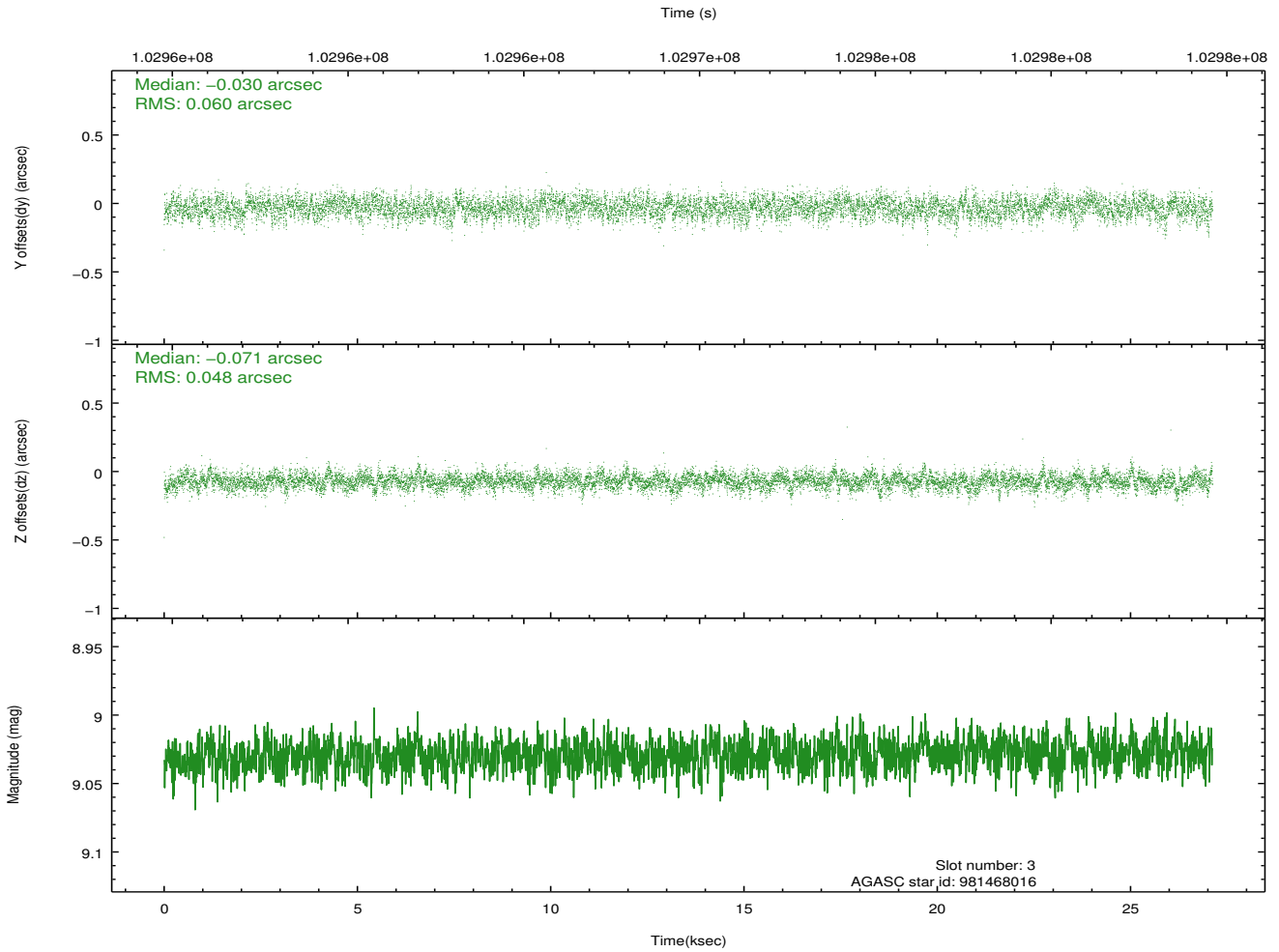
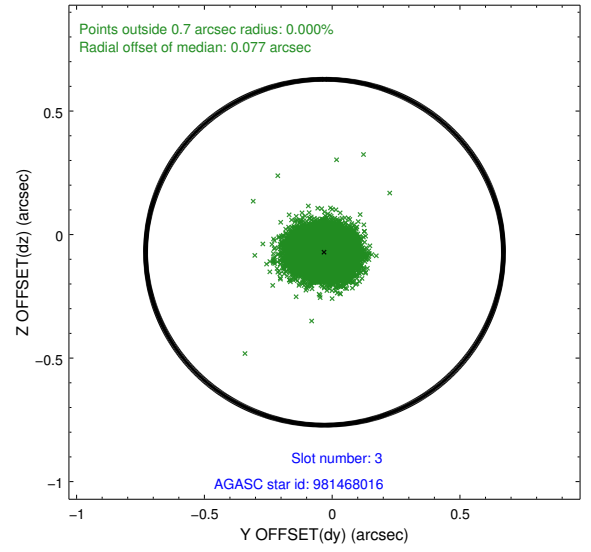
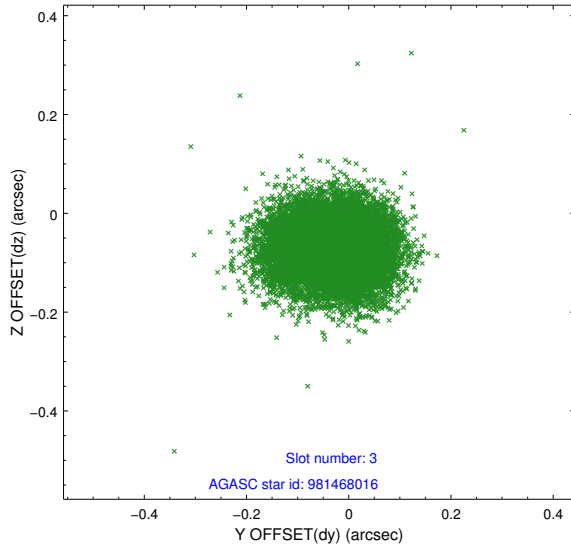


### Slot Statistics

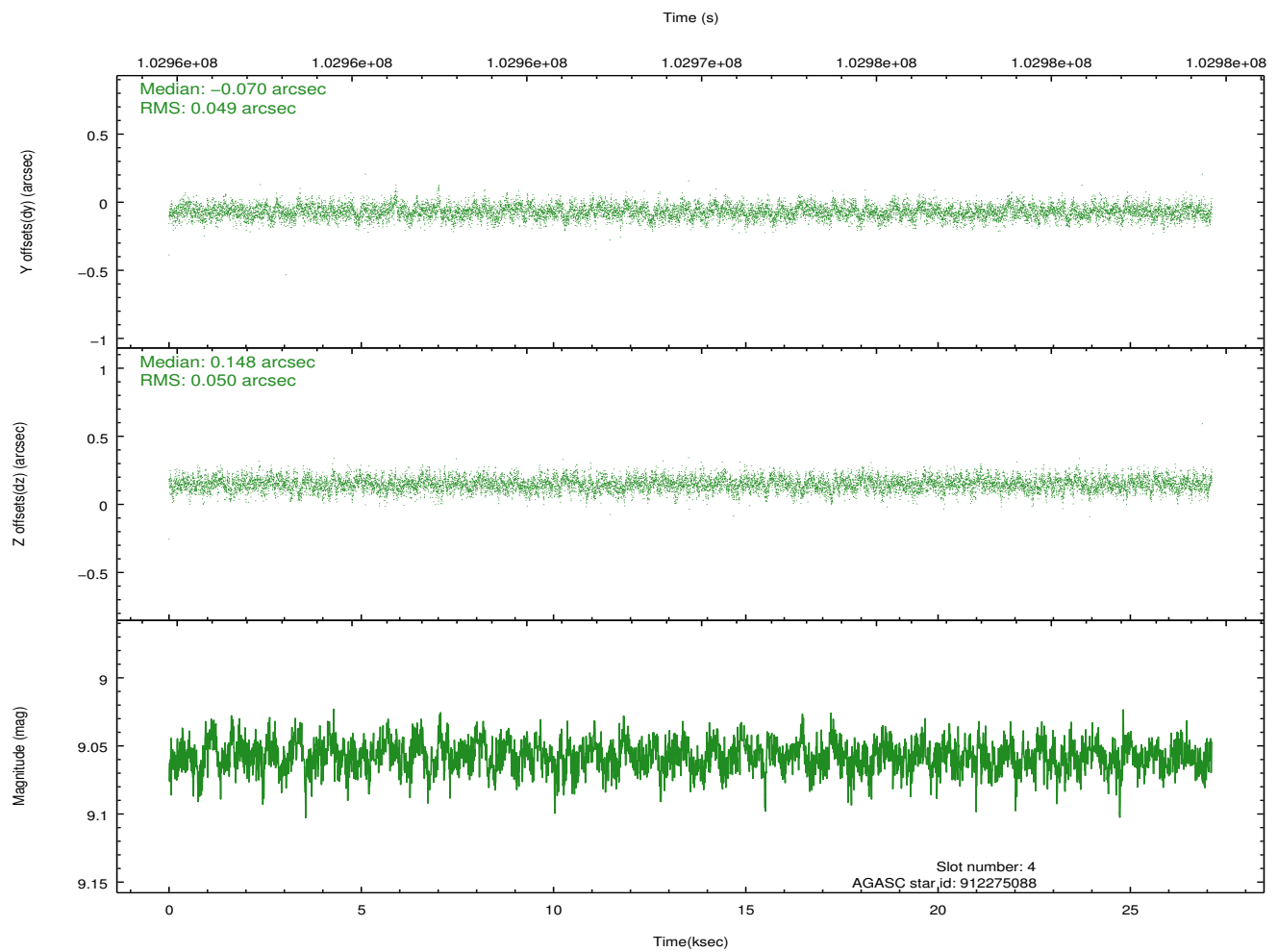
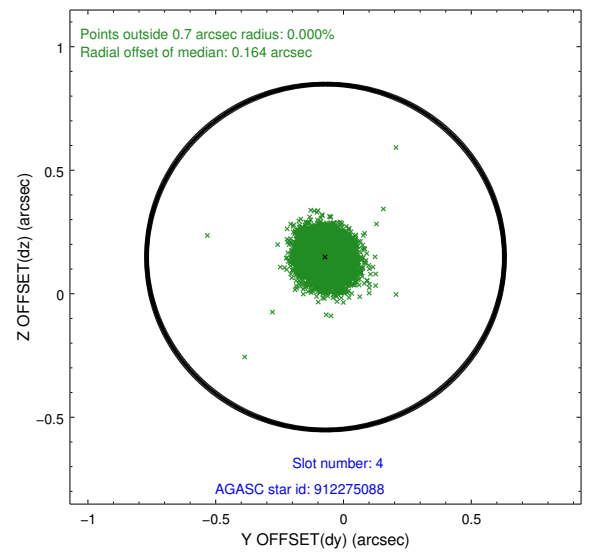
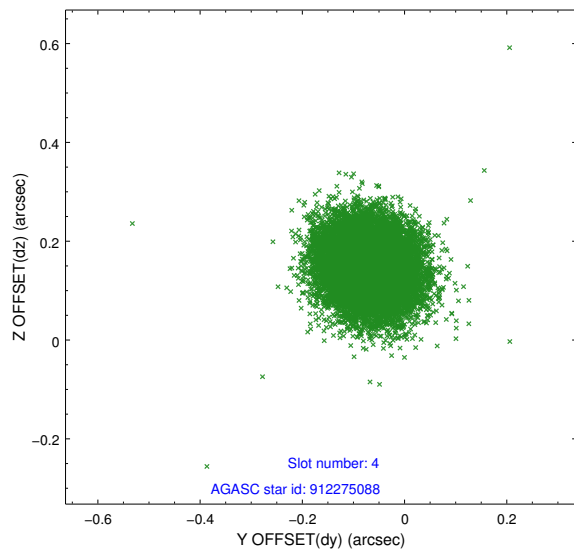
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-S-1	7.00	6614	0.137	-0.120	0.015	0.028	0.000000	0.000000	-1156.76	-455.06
1	FID	HRC-S-2	7.00	6615	0.111	-0.095	0.005	0.009	0.000000	0.000000	1242.72	-447.77
2	FID	HRC-S-3	7.02	6615	0.142	-0.086	0.016	0.031	0.000000	0.000000	-1159.28	574.43
3	GUIDE	981468016	9.03	13227	-0.030	-0.071	0.082	0.133	328.842457	-30.034984	2090.56	2004.04
4	GUIDE	912275088	9.06	13222	-0.070	0.148	0.074	0.120	329.619228	-29.738698	1715.74	-617.76
5	GUIDE	981478152	9.40	13228	0.016	-0.146	0.078	0.133	329.415589	-30.057192	1080.77	528.63
6	GUIDE	981468128	9.36	13227	0.178	0.146	0.088	0.146	329.756350	-30.158334	208.95	-177.10
7	GUIDE	981469488	9.60	13220	-0.094	-0.077	0.097	0.158	329.261199	-30.045155	1371.83	914.09

## 2.4 Star Slots

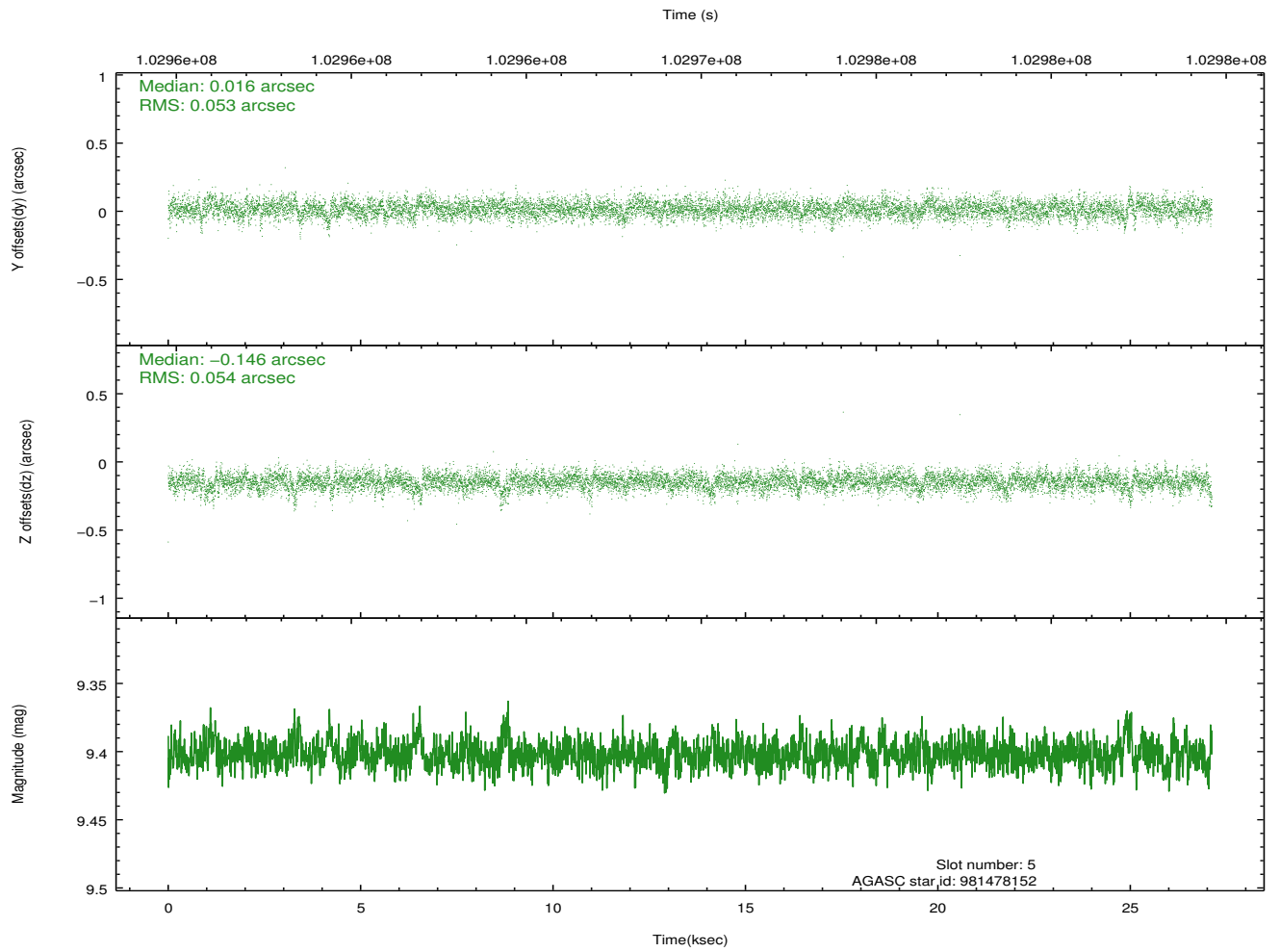
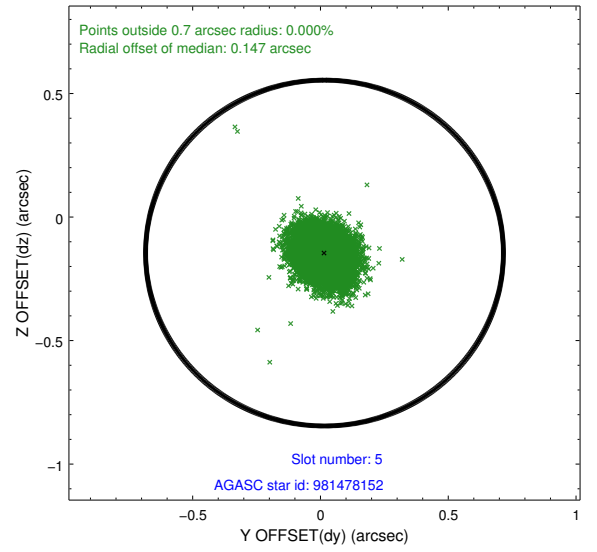
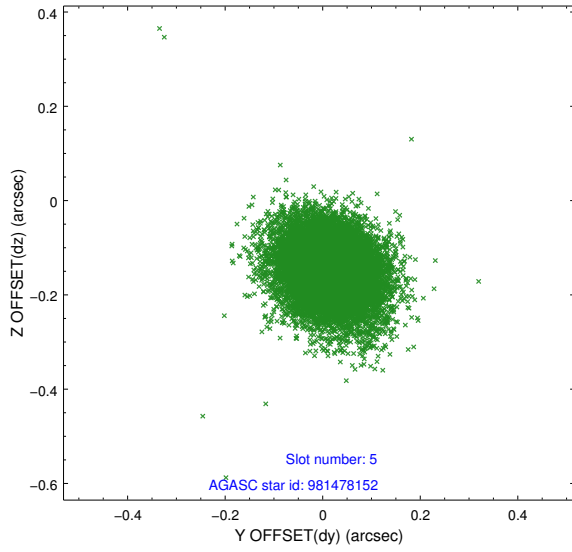
### 2.4.1 Slot 3



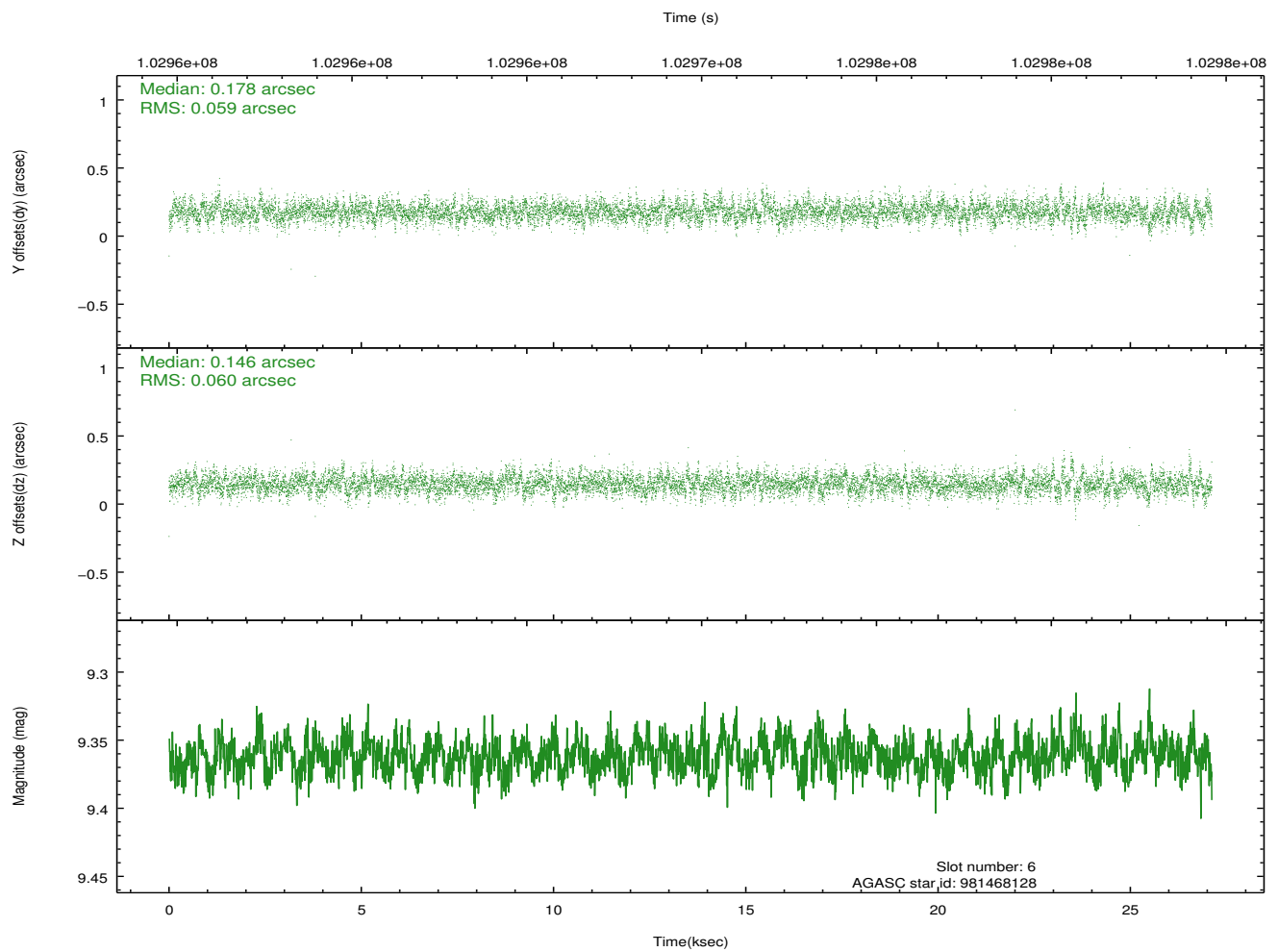
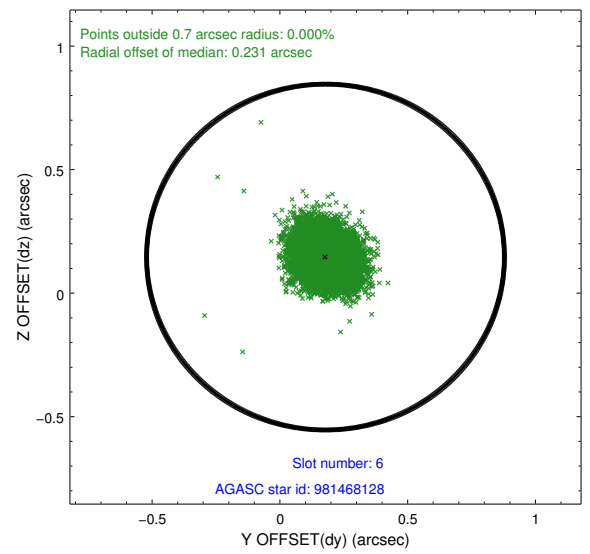
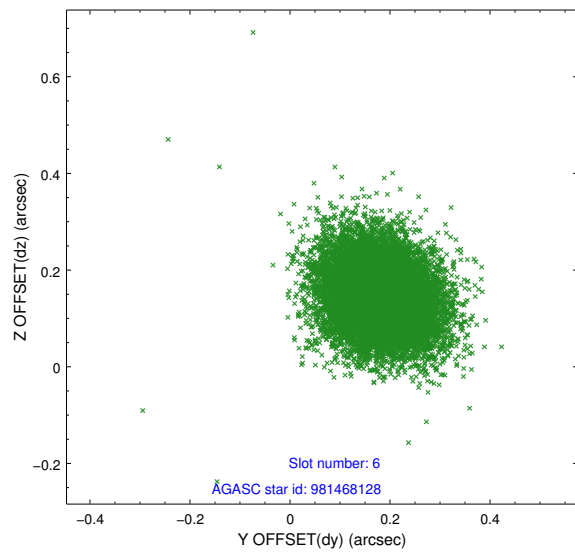
## 2.4.2 Slot 4



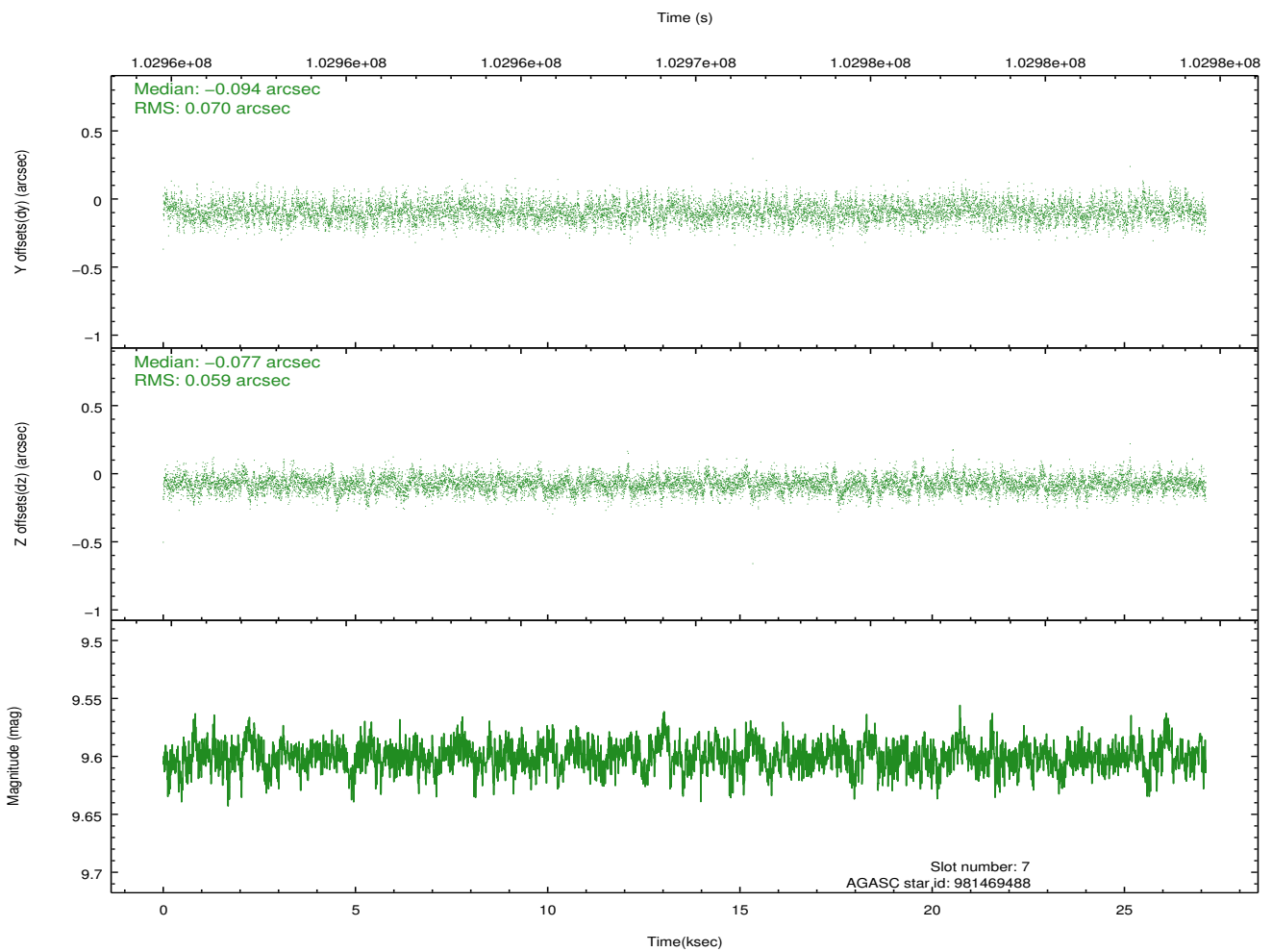
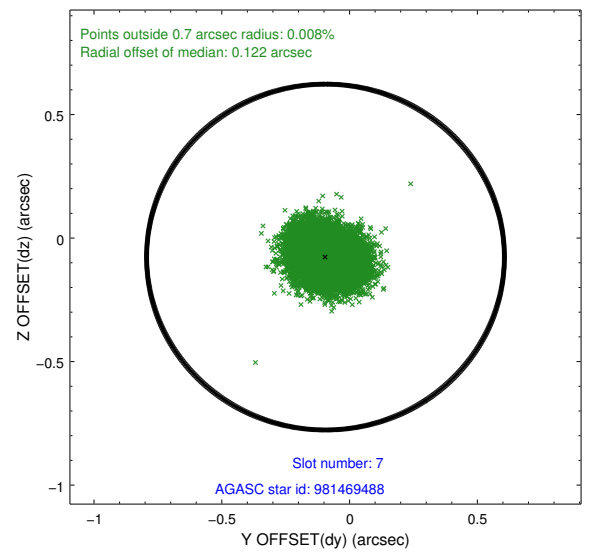
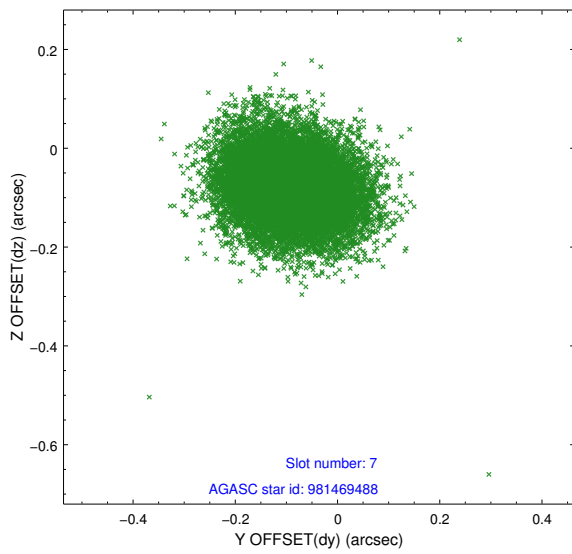
### 2.4.3 Slot 5



## 2.4.4 Slot 6

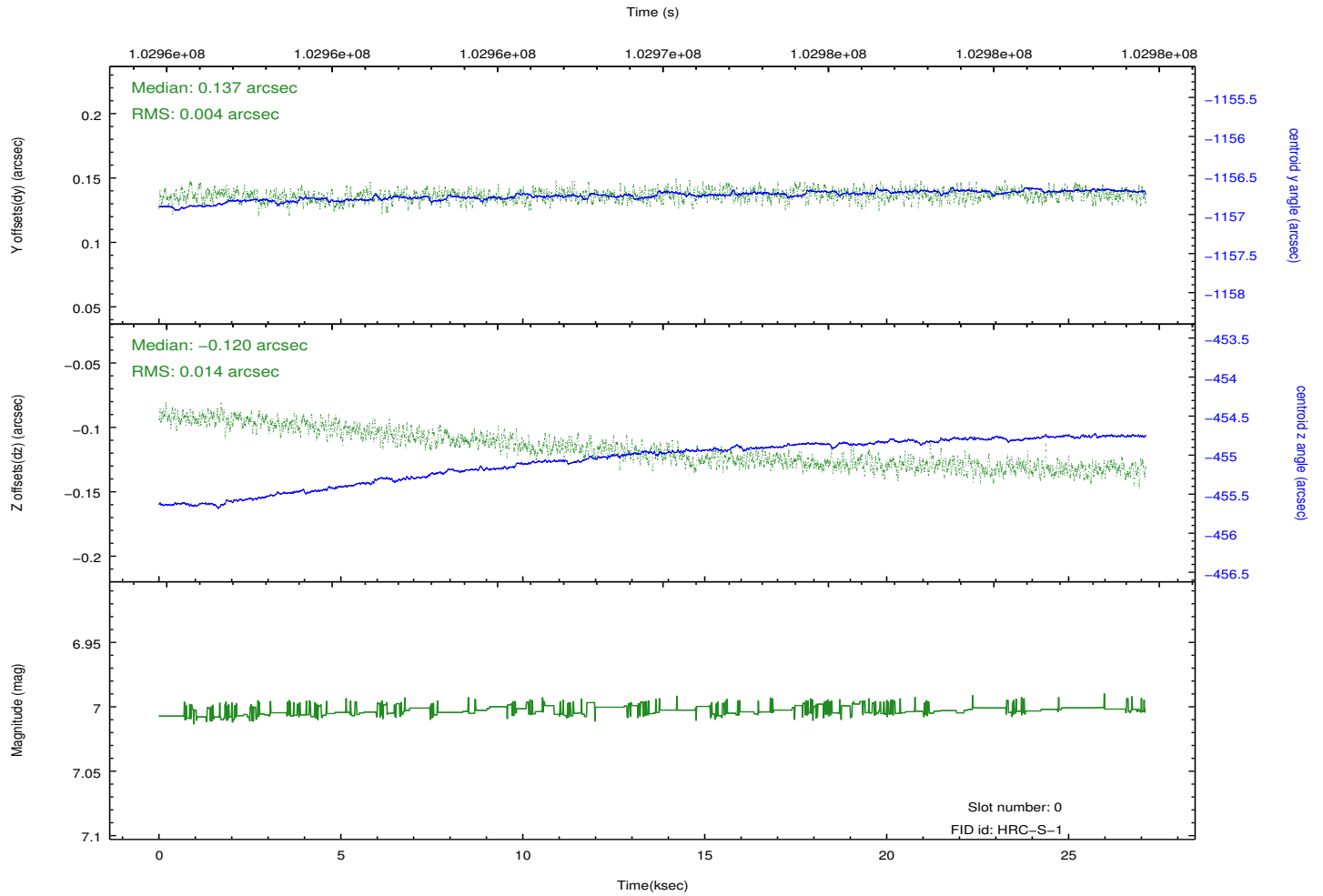
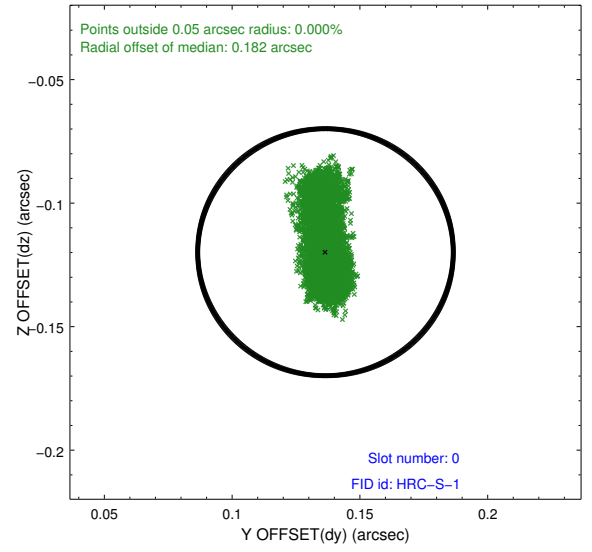
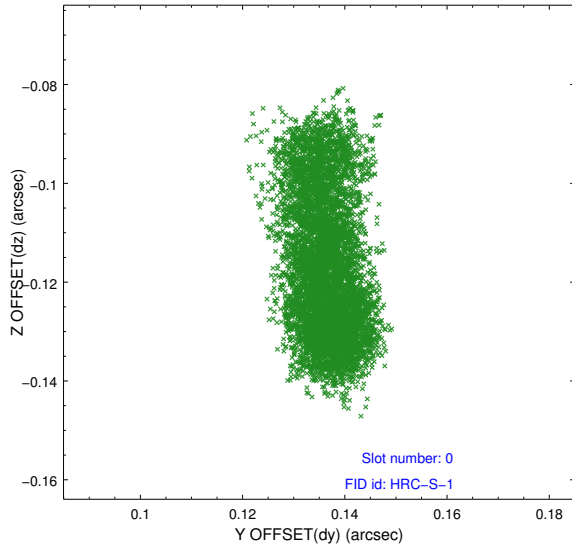


## 2.4.5 Slot 7

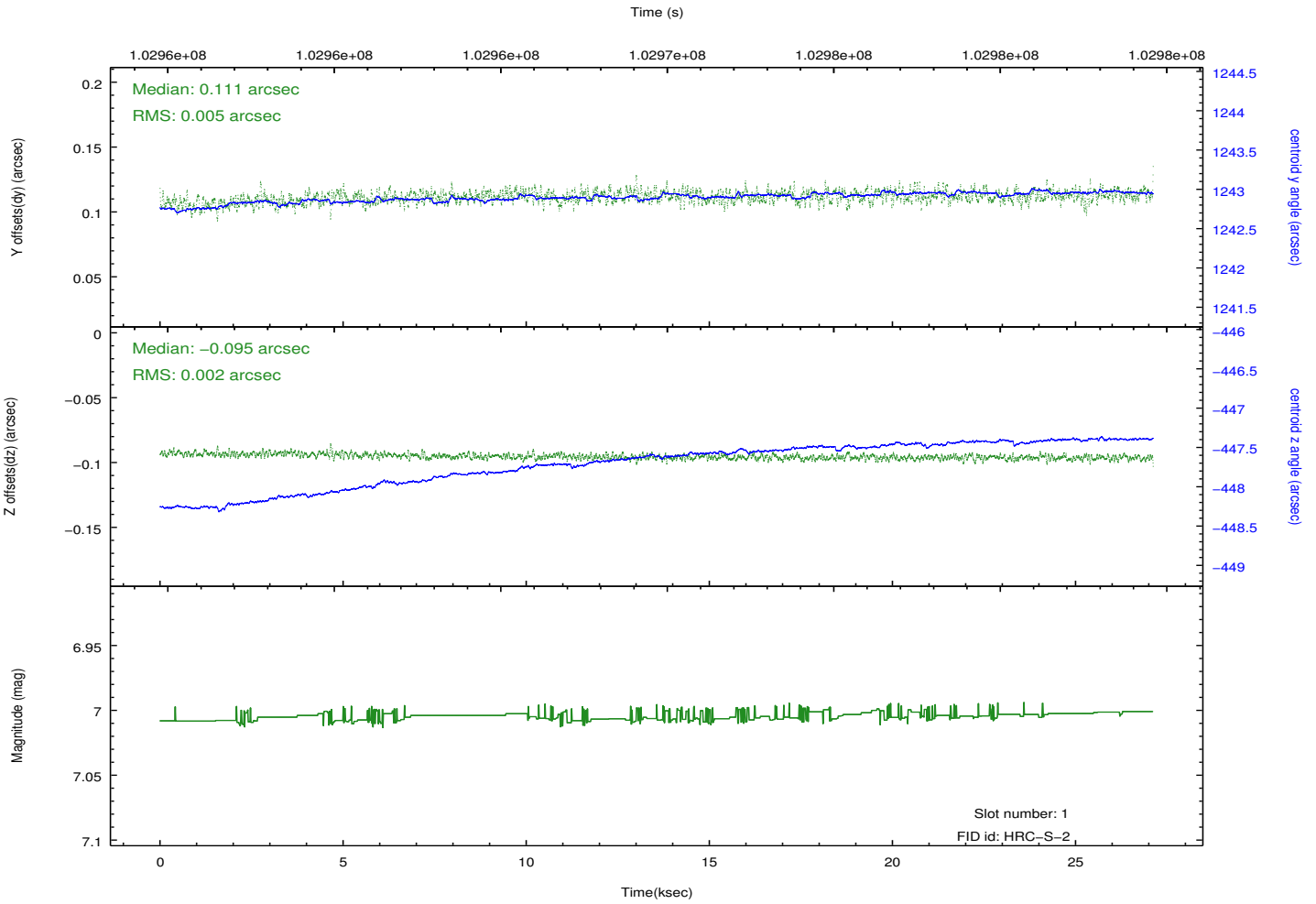
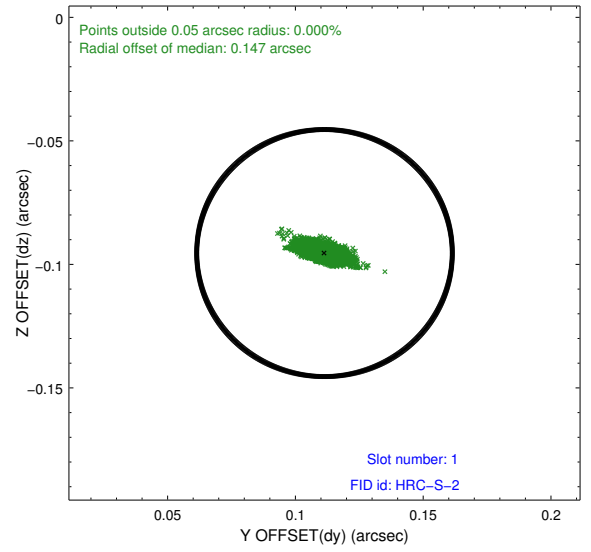
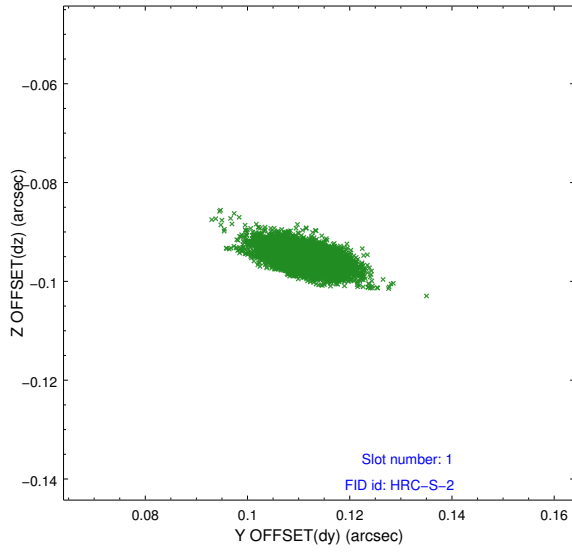


## 2.5 FID Slots

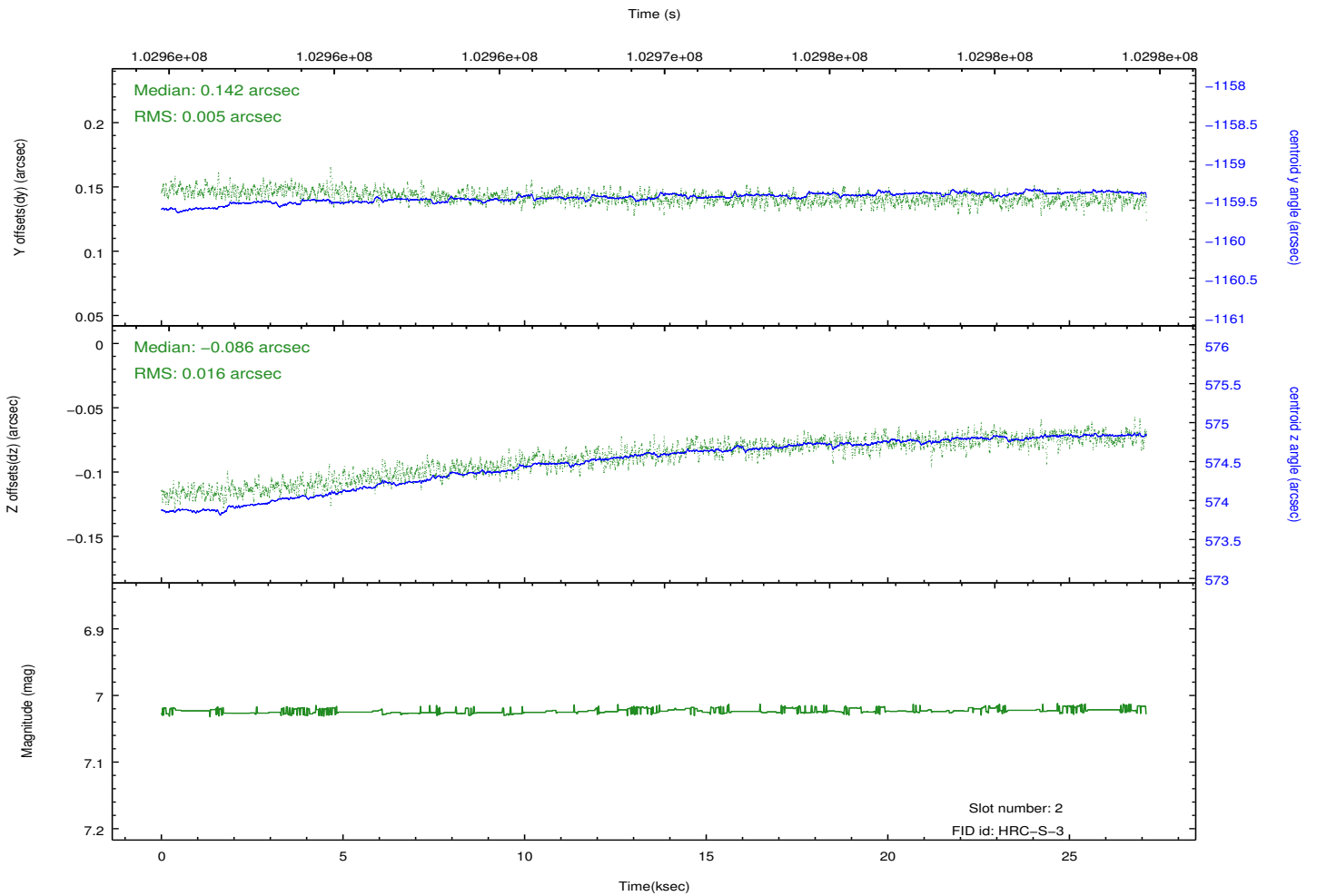
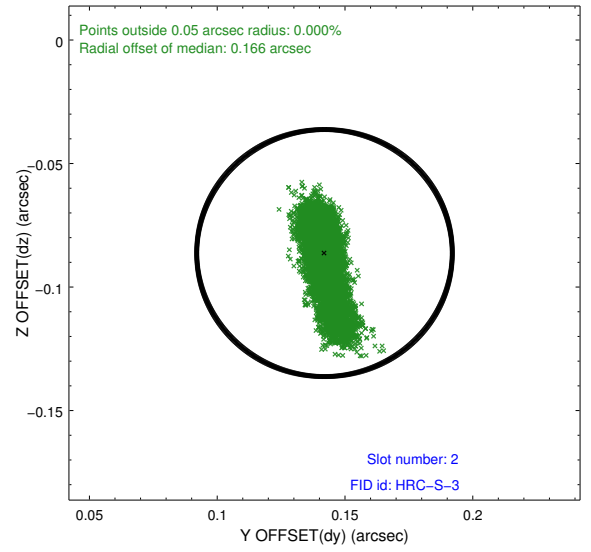
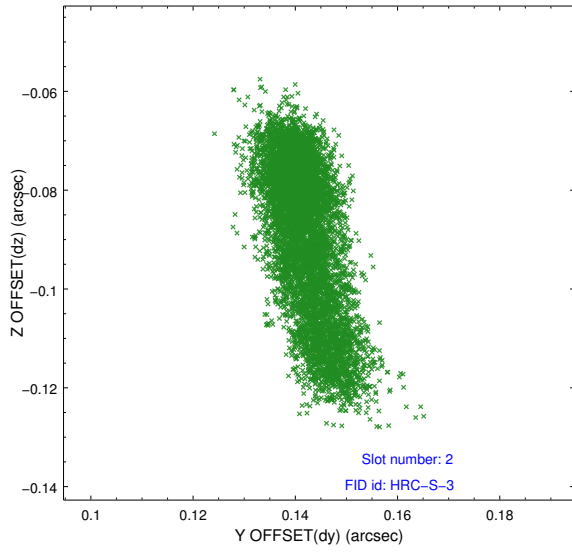
### 2.5.1 Slot 0



## 2.5.2 Slot 1

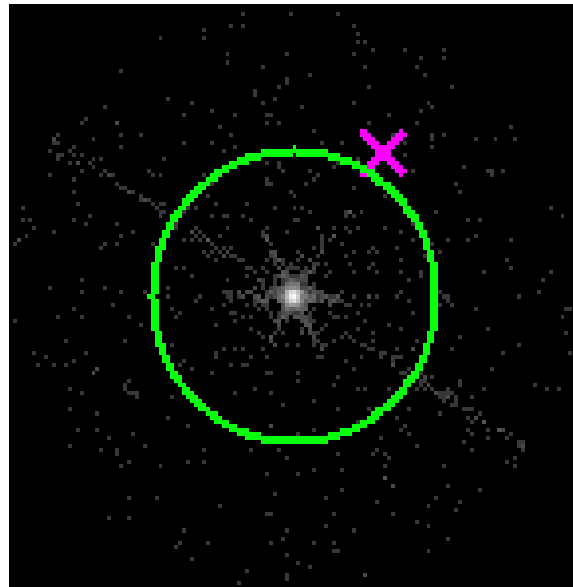


### 2.5.3 Slot 2

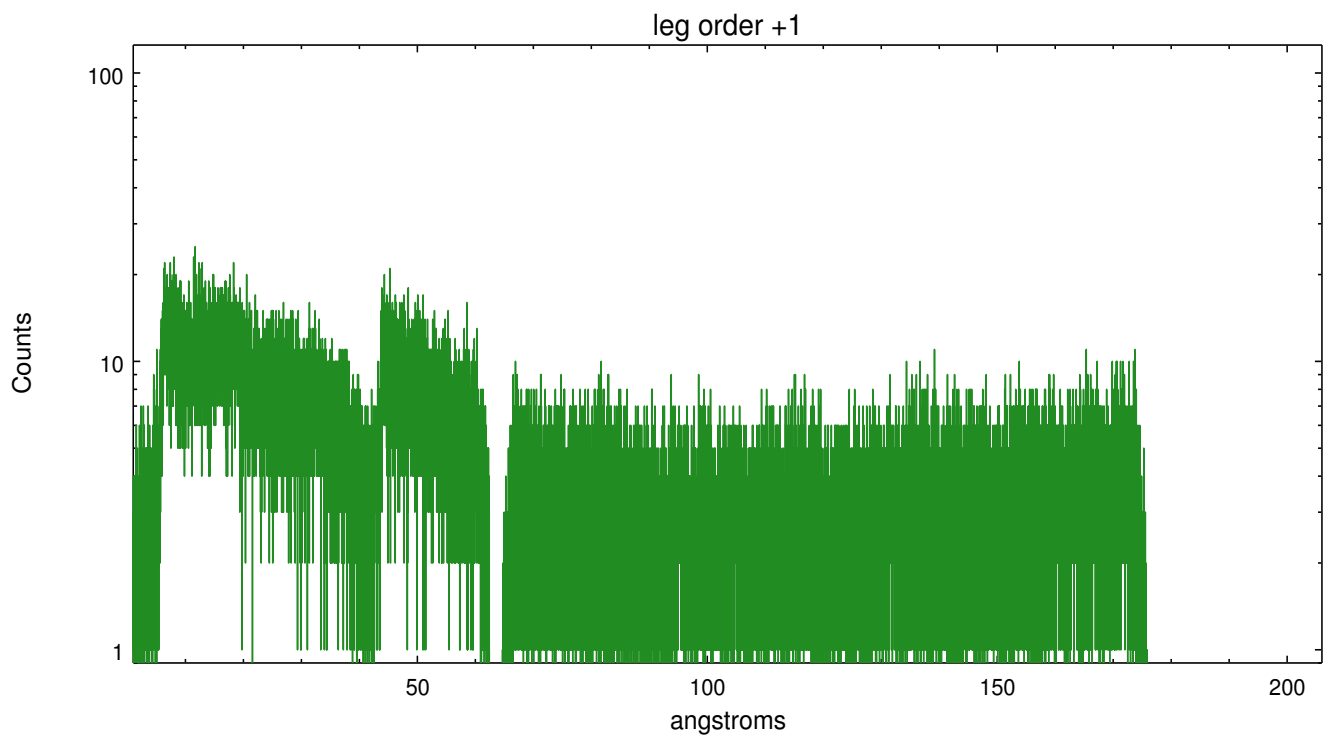
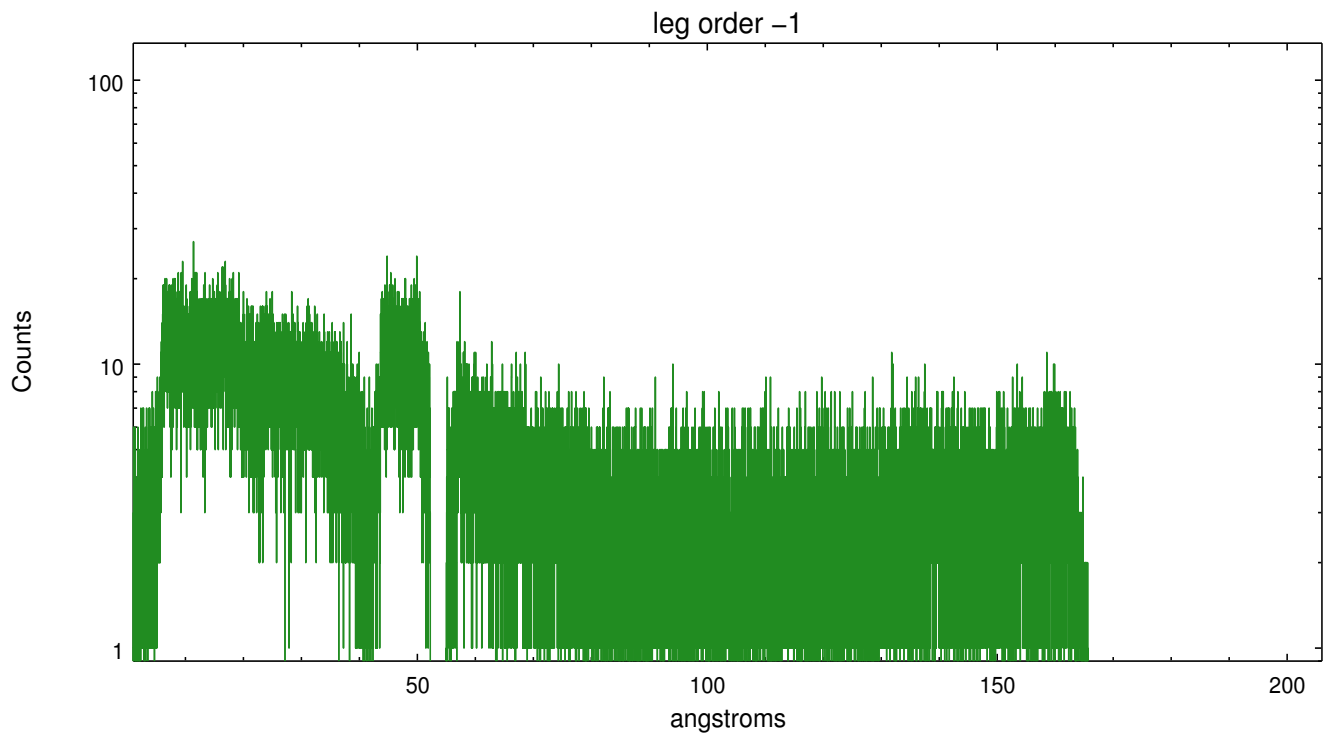


### 3 Gratings

#### 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	26.822

## A.2 Comments

There are several periods of high count rate, presumably due to a high radiation environment during this observation.