

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 10409 - L2 Version 3  
Chandra X-Ray Center

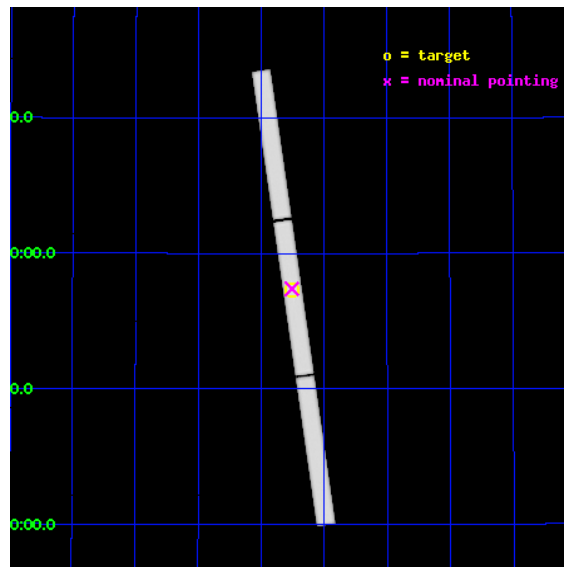
L2 Processing Date : Aug 13 2012

## 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

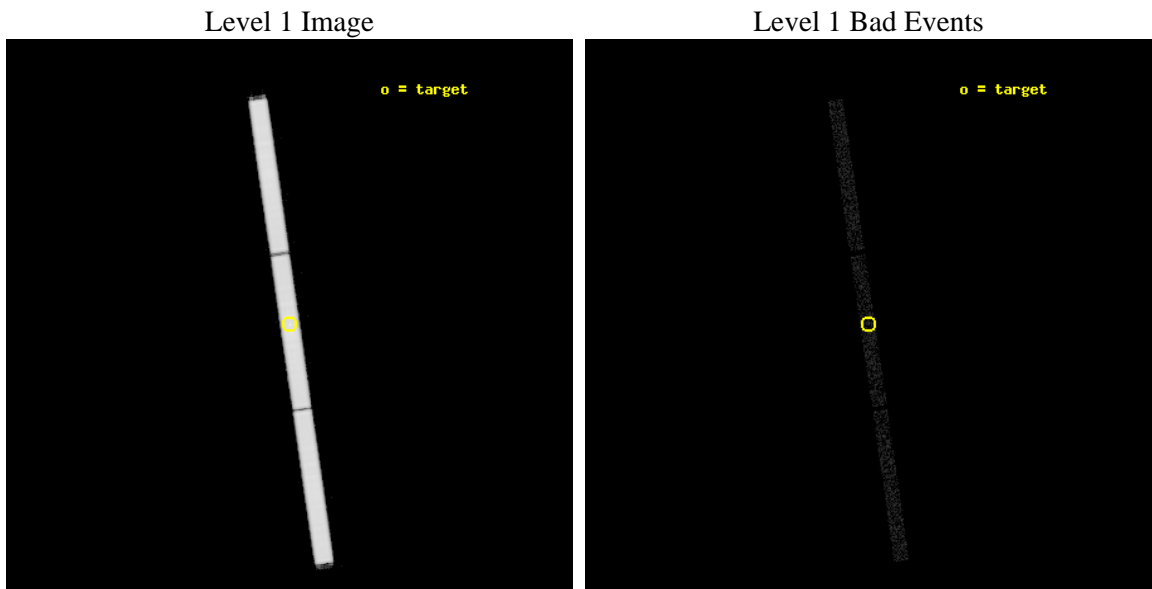
seq_num	701950	Sequence number
obs_id	10409	Observation id
title	A Co-ordinated Chandra, Suzaku, HST Campaign for NGC3227	Proposal
observer	Dr. Martin Elvis	Principal investigator
object	NGC3227	Source name
ra_targ	155.8775	Observer's specified target RA [deg]
dec_targ	19.865	Observer's specified target Dec [deg]
ra_nom	155.87831189657	Nominal RA [deg]
dec_nom	19.869707571831	Nominal Dec [deg]
roll_nom	81.667068428707	Nominal Roll [deg]
revision	3	Processing version of data
ontime	41749.533315659	[s]
livetime	41312.803644937	Ontime multiplied by DTCOR
l2events	3682058	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	41564.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	41749.533315659	[s]
caldbver	4.5.1.1	&#160	l1events	4939342	Number of level 1 events
date	2012-08-13T04:24:11	Date and time of file creation			
revision	3	Processing version of data			

## 2.1.3 Events

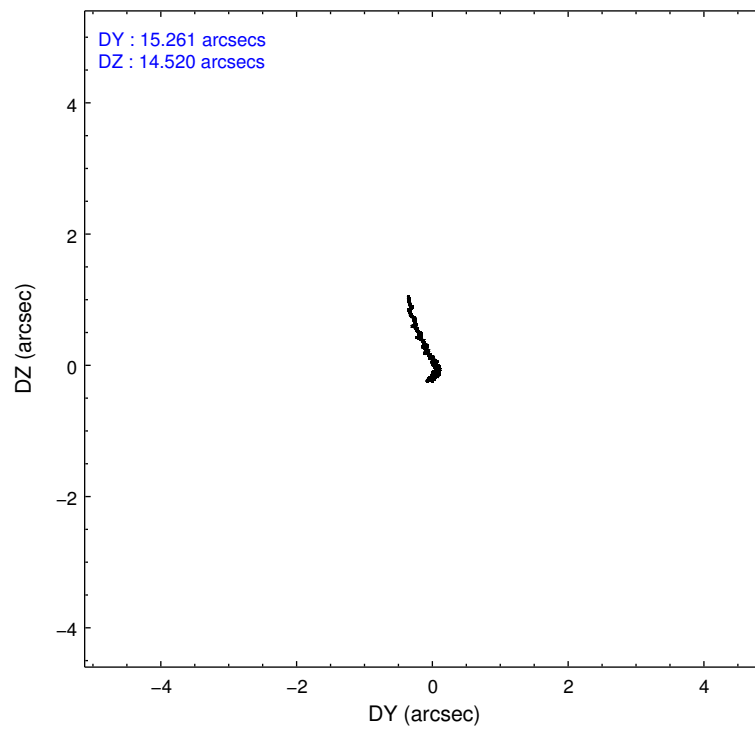
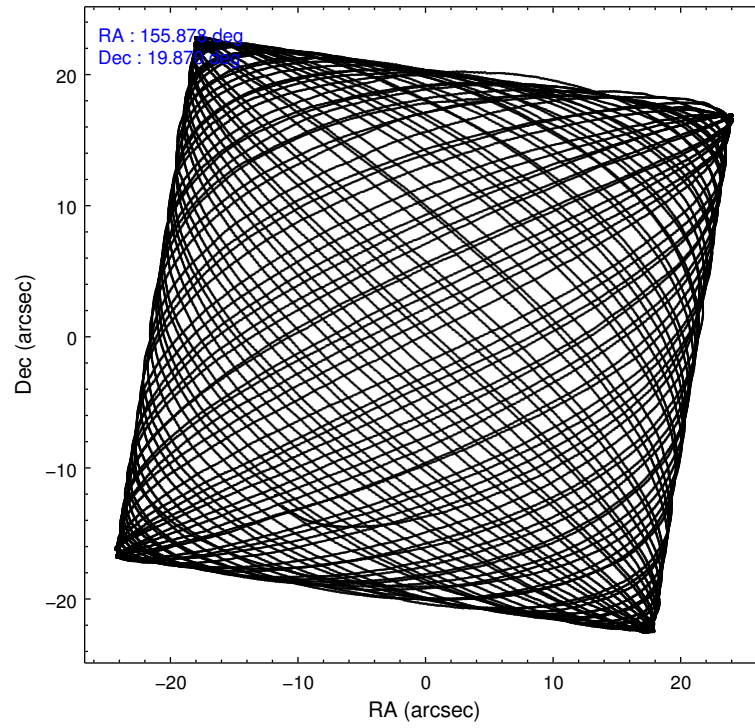
### Level 1 Events

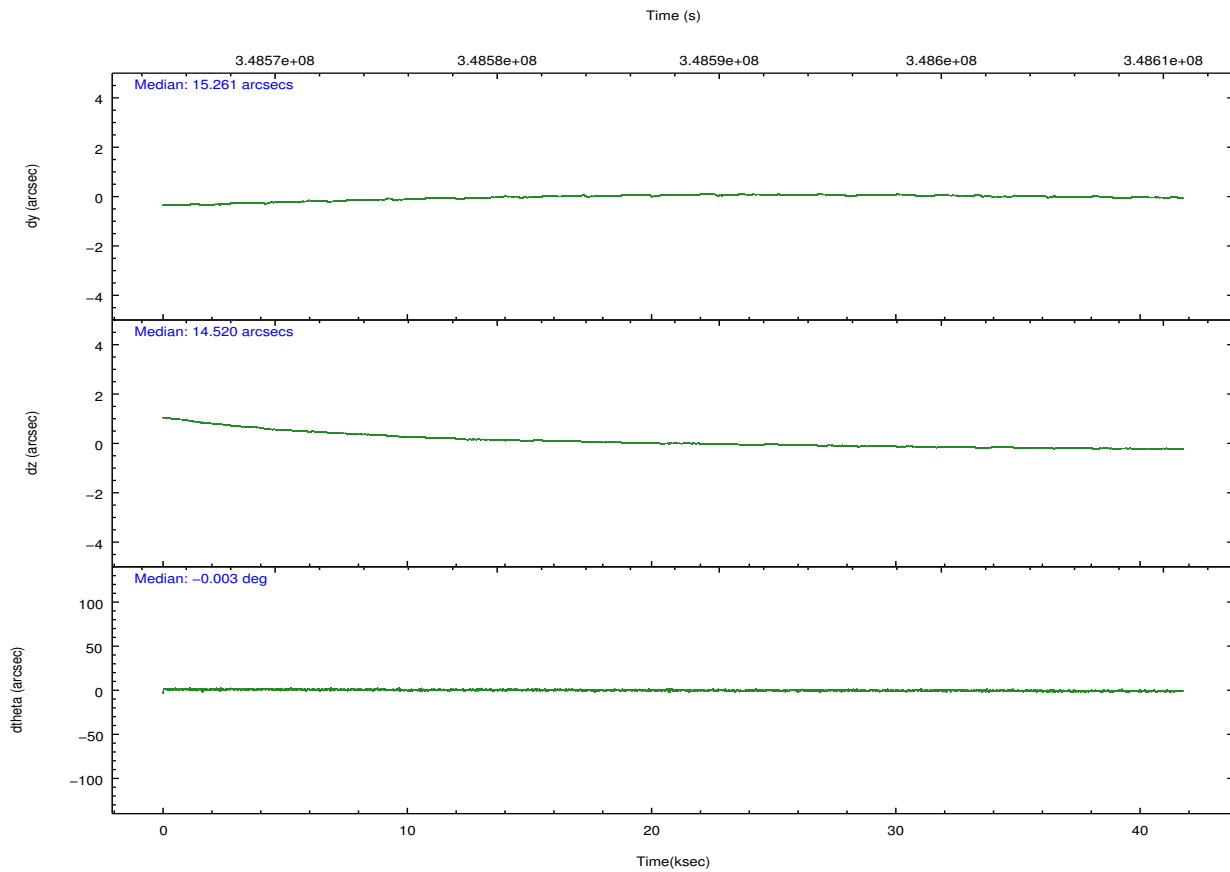
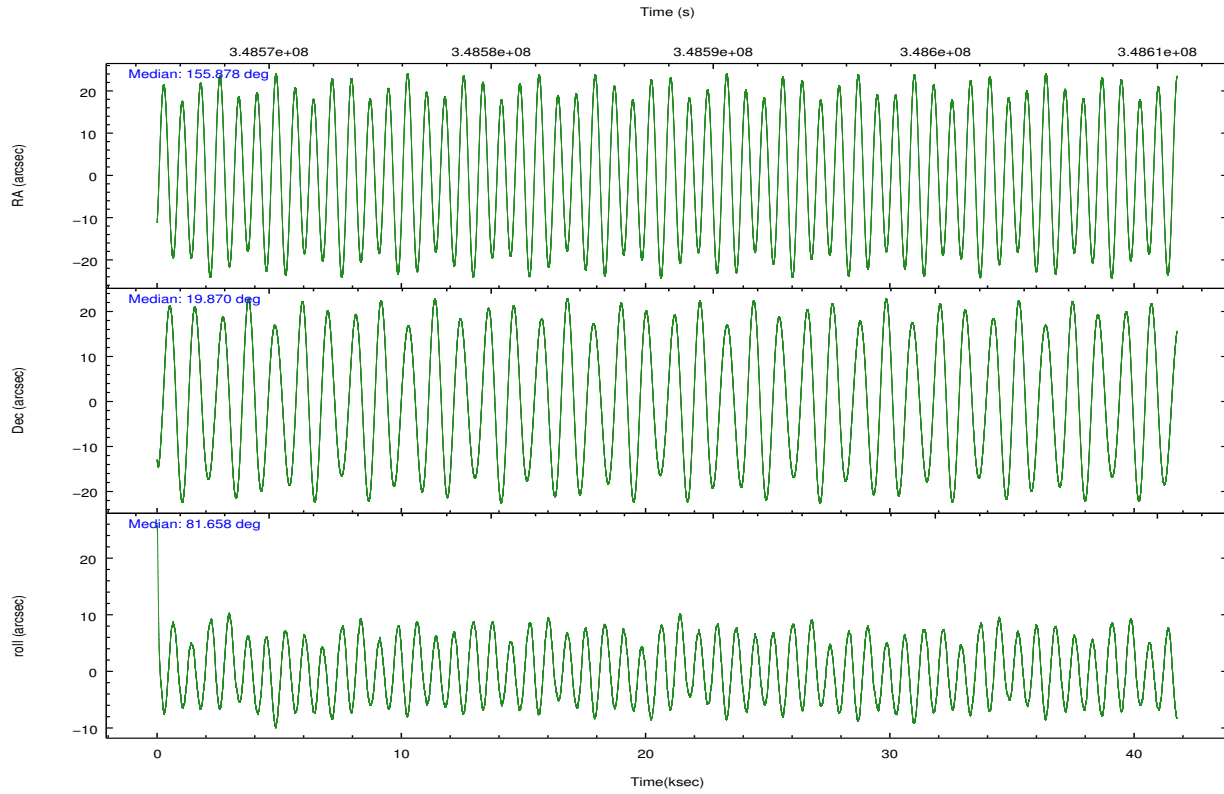
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	1646619	1638171	1654552
rejected events	48673	48475	49251
rejected %	2%	2%	2%

## 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	155.890979	155.878311896569			
[deg] Pointing Dec	19.843585	19.86970757183124			
[deg] Pointing Roll	81.595422	81.66706842870667			
[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)	348567231.184000	348565846.01745			
Observation start date	2009-01-17T08:12:45	2009-01-17T07:50:46			
[s] Observation end time (MET)	348608795.184000	348609943.05713			
Observation end date	2009-01-17T19:45:29	2009-01-17T20:05:43			

## 2.3 Aspect



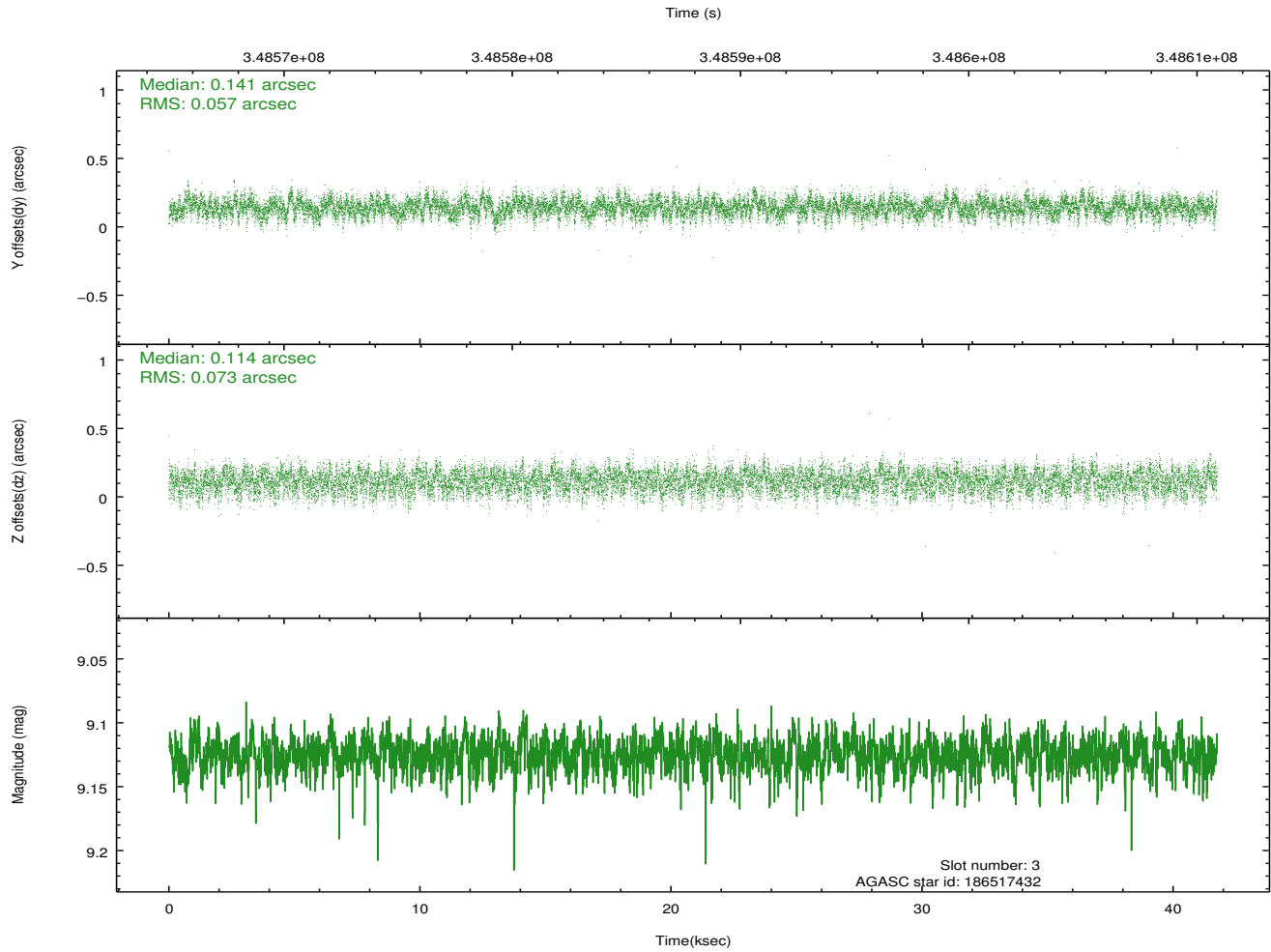
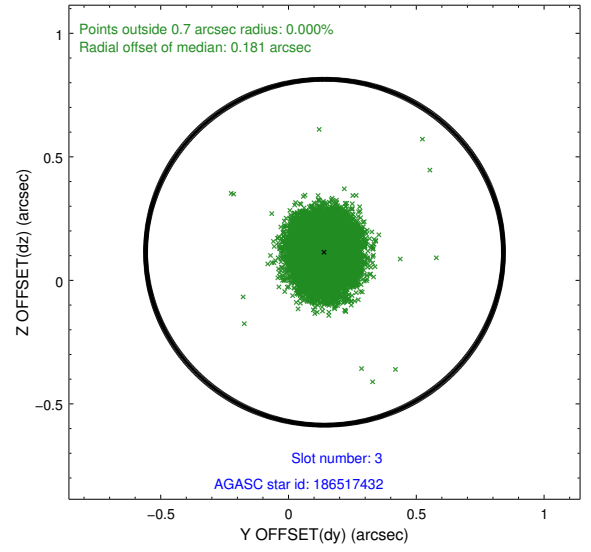
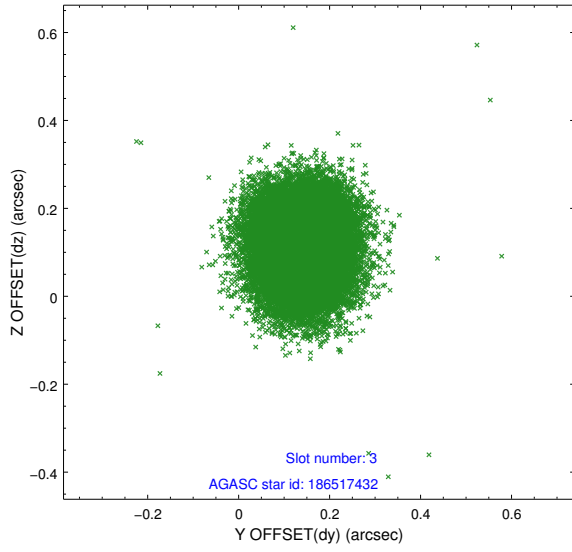


### Slot Statistics

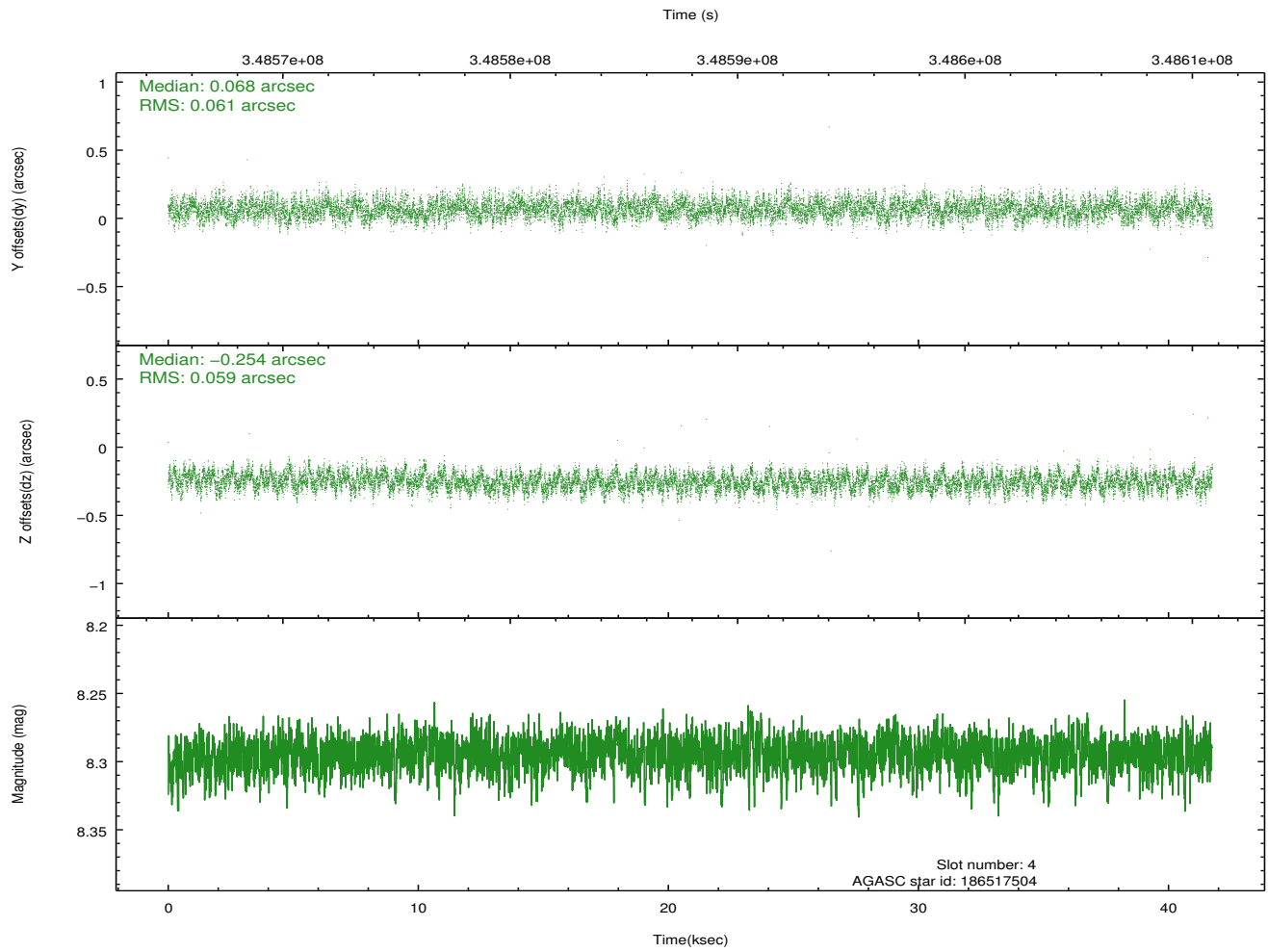
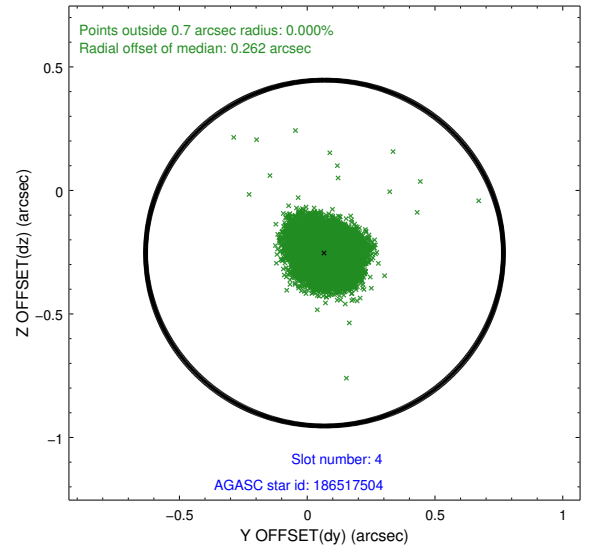
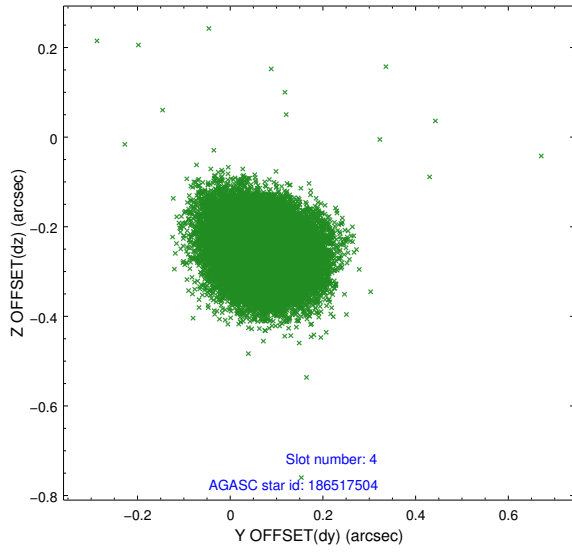
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-S-1	7.03	10180	0.073	-0.219	0.008	0.014	0.000000	0.000000	-1169.64	-463.52
1	FID	HRC-S-2	7.02	10181	0.224	-0.116	0.005	0.011	0.000000	0.000000	1230.08	-456.12
2	FID	HRC-S-3	7.04	10182	0.093	0.032	0.008	0.015	0.000000	0.000000	-1172.21	566.21
3	GUIDE	186517432	9.13	20345	0.141	0.114	0.099	0.156	155.977538	19.585156	-877.06	-425.76
4	GUIDE	186517504	8.29	20356	0.068	-0.254	0.090	0.143	155.199091	19.538995	-1423.33	2162.67
5	GUIDE	186522112	9.28	20344	0.050	0.203	0.136	0.214	156.516720	19.401457	-1259.76	-2333.43
6	GUIDE	186915152	8.61	20283	-0.136	-0.105	0.085	0.137	155.481319	20.053598	546.87	1481.40
7	GUIDE	186916944	9.22	20264	-0.124	0.036	0.114	0.192	156.549178	20.276162	1869.78	-1969.85

## 2.4 Star Slots

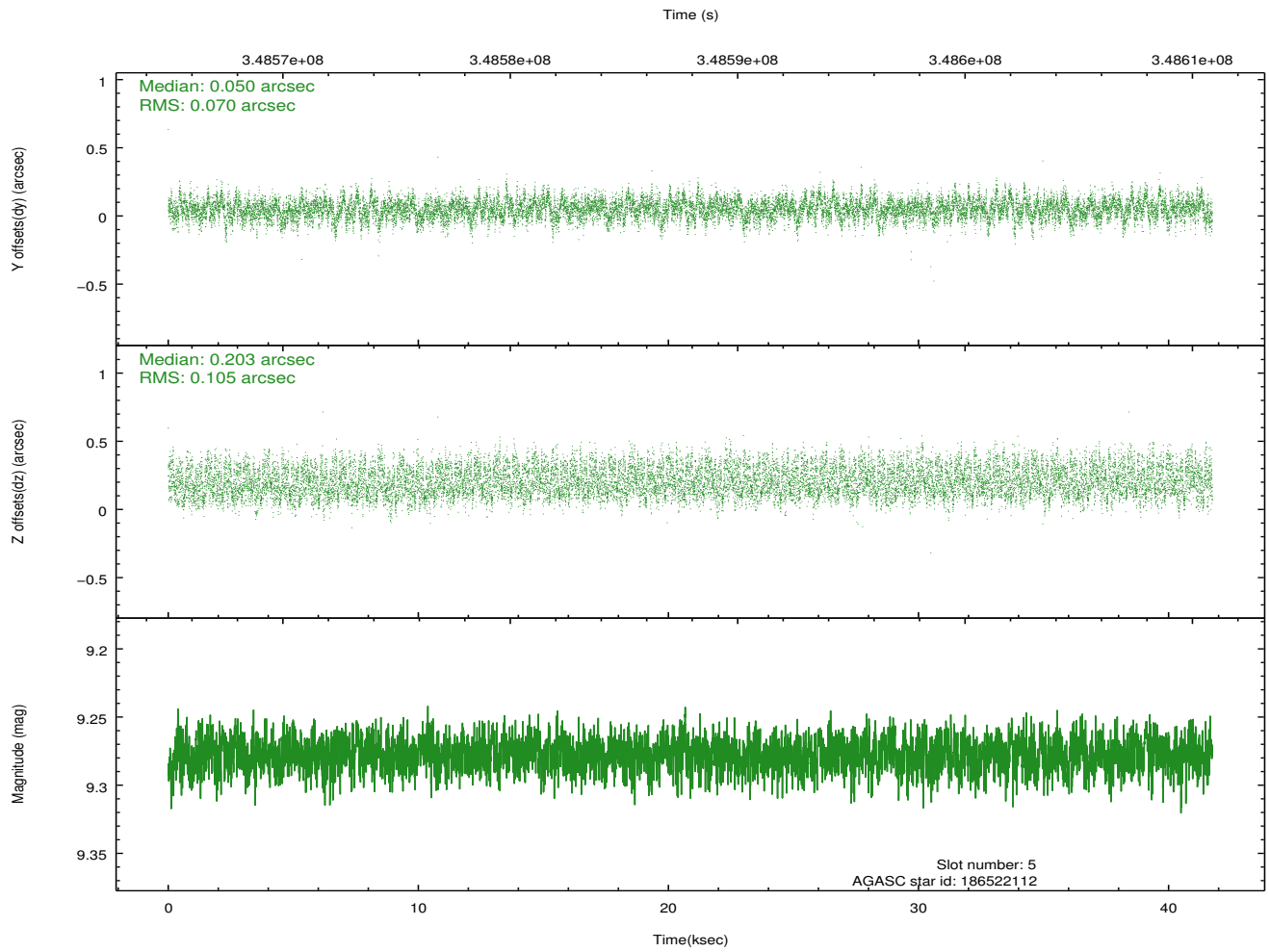
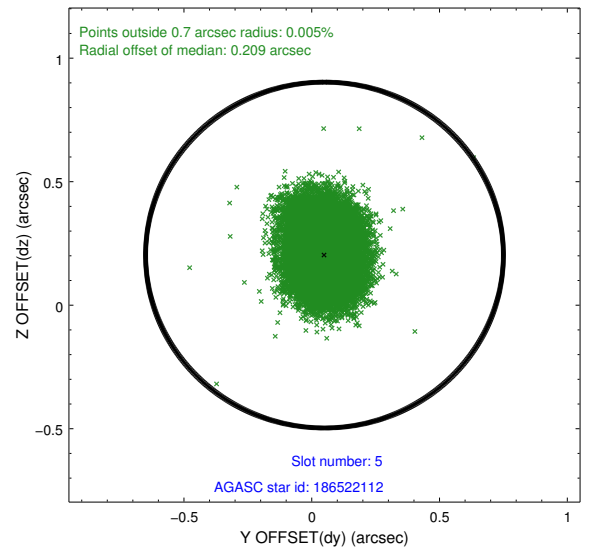
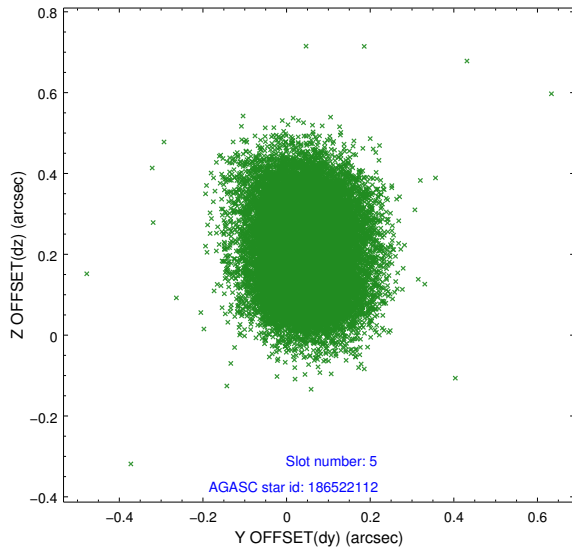
### 2.4.1 Slot 3



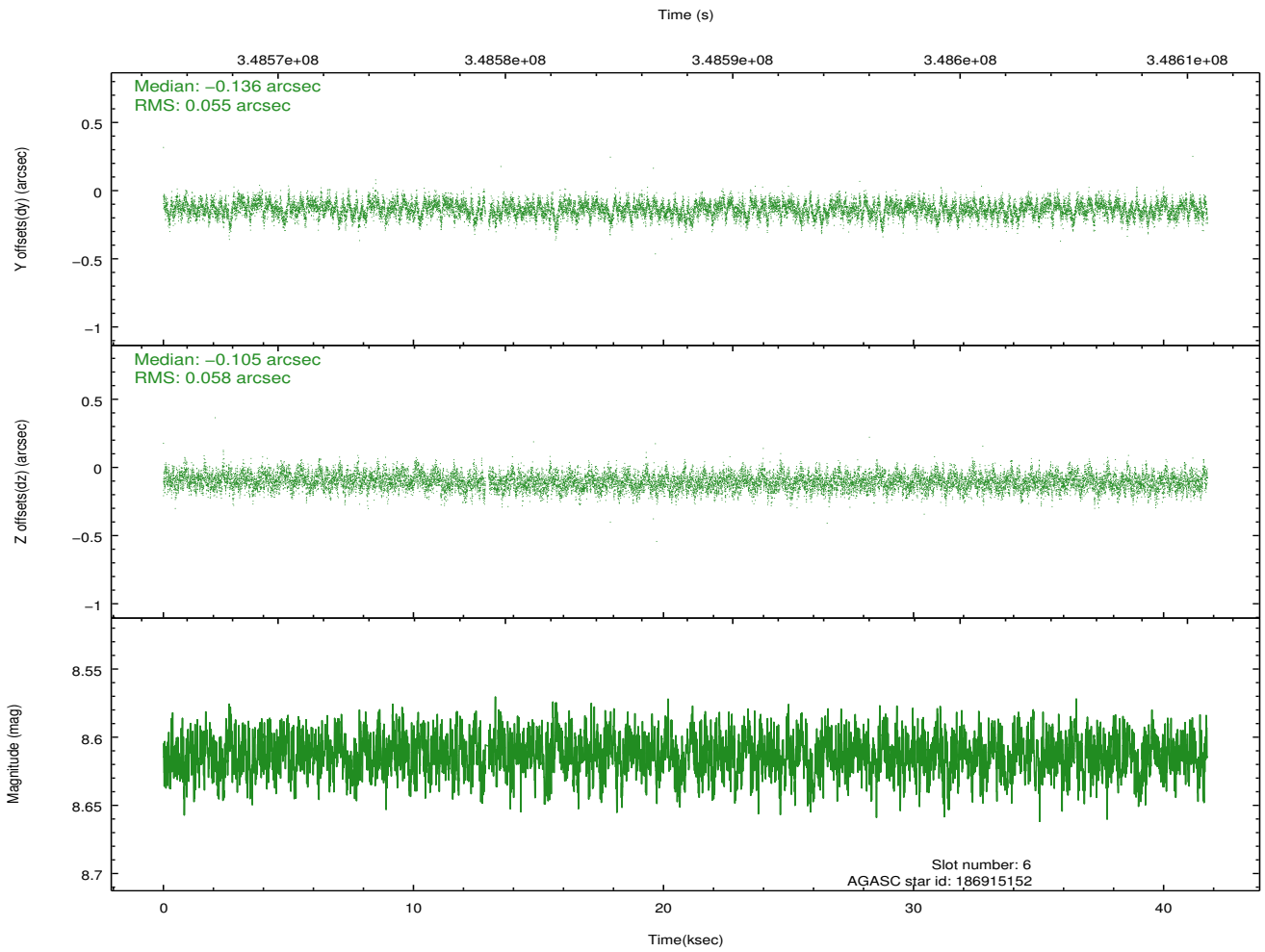
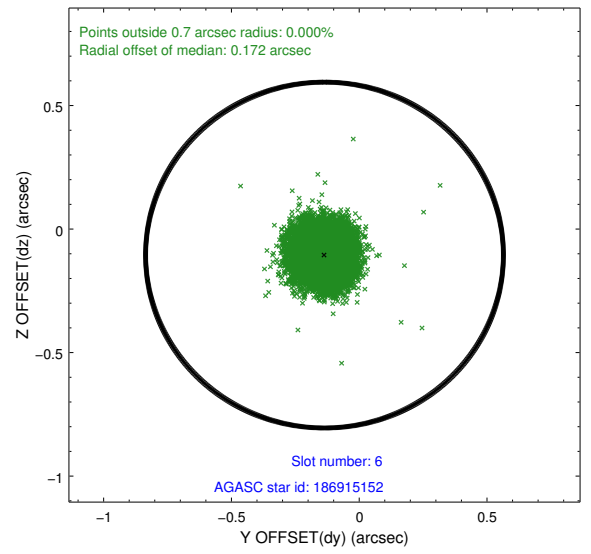
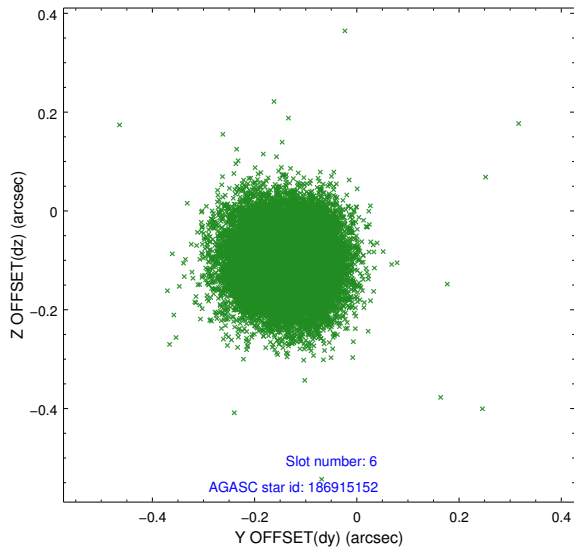
## 2.4.2 Slot 4



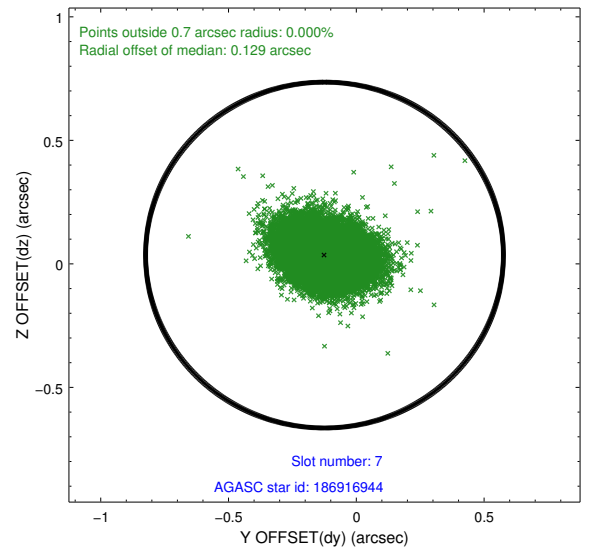
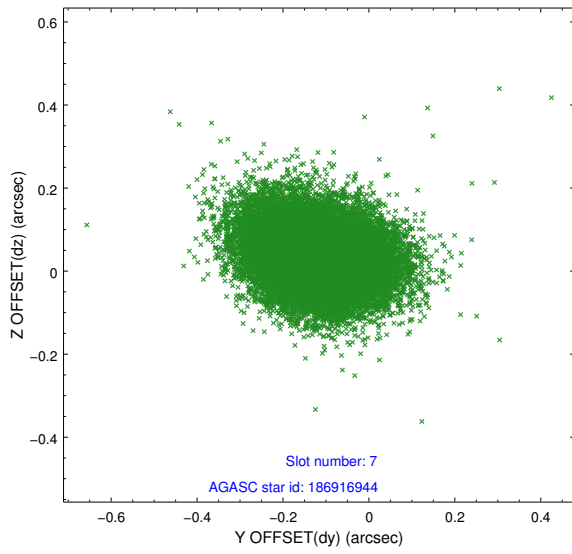
### 2.4.3 Slot 5



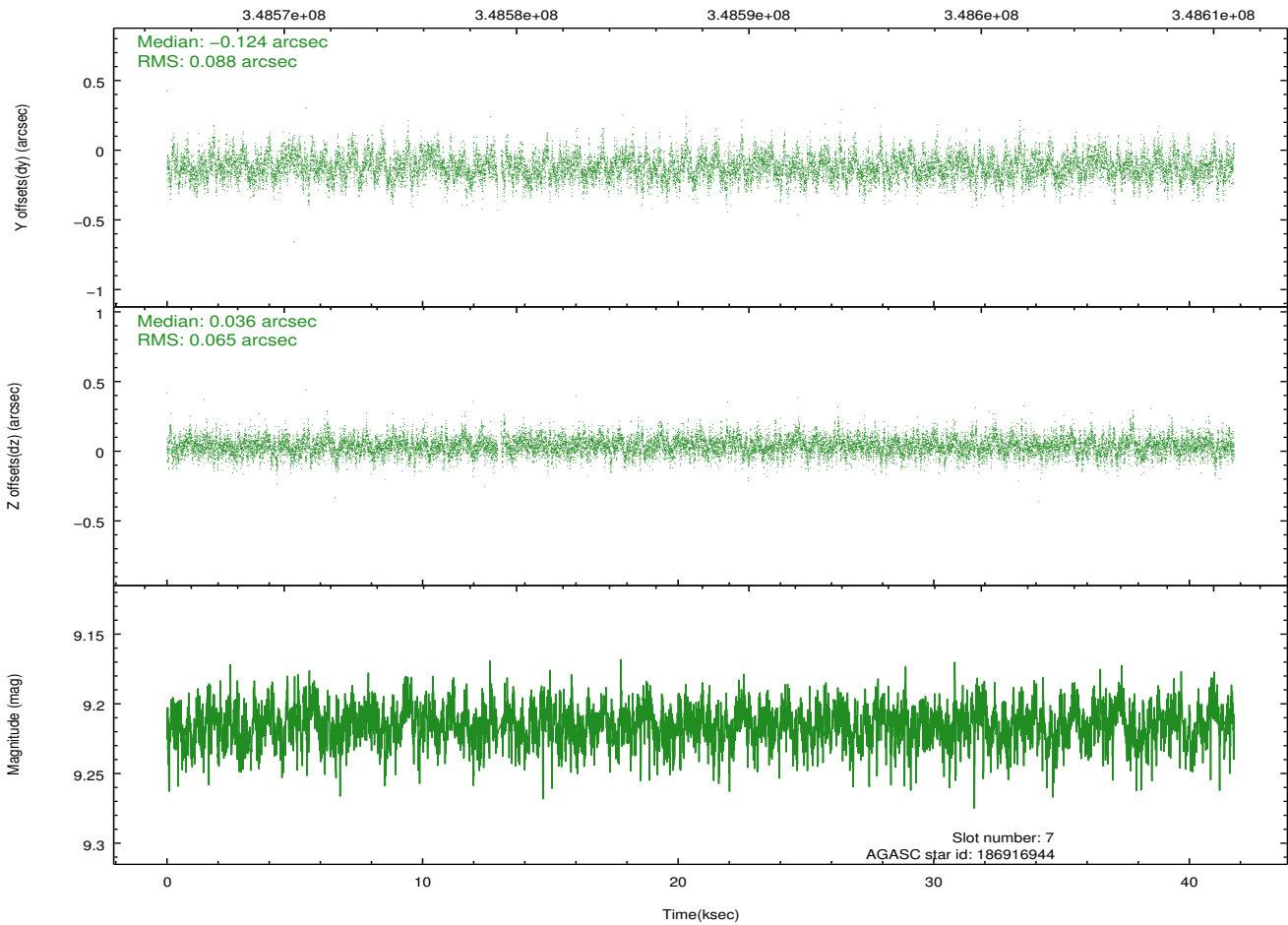
## 2.4.4 Slot 6



## 2.4.5 Slot 7

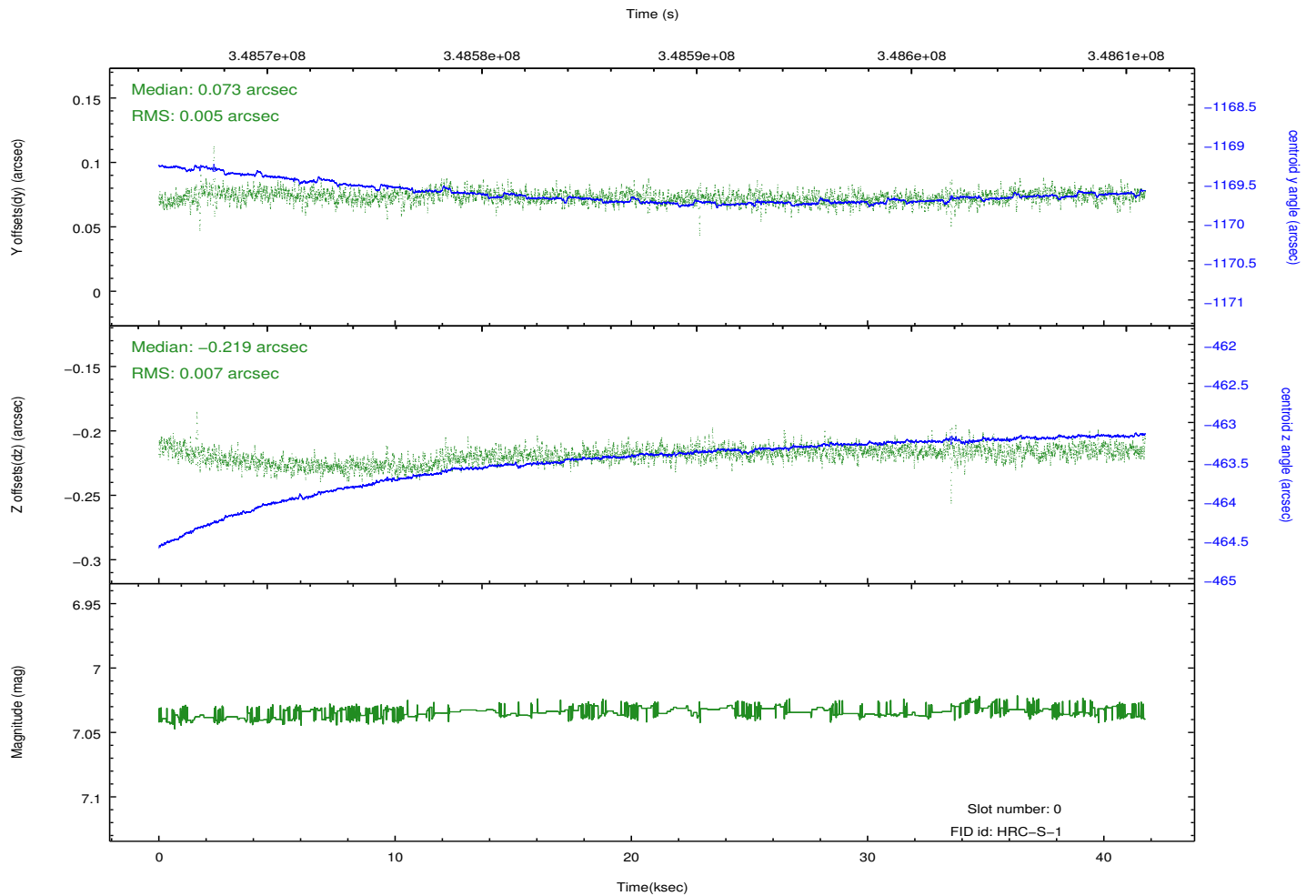
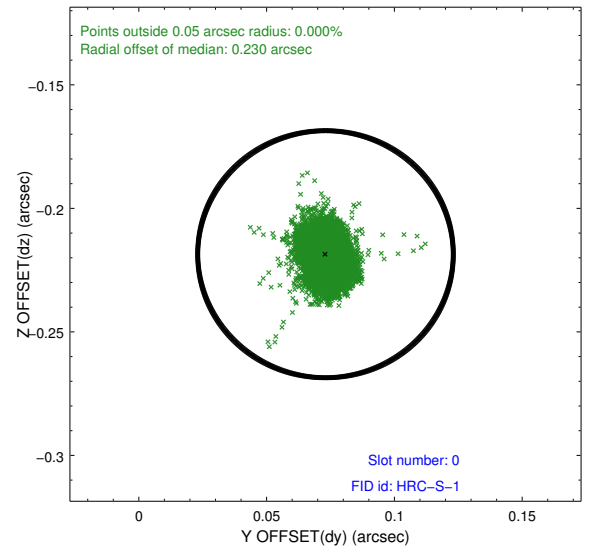
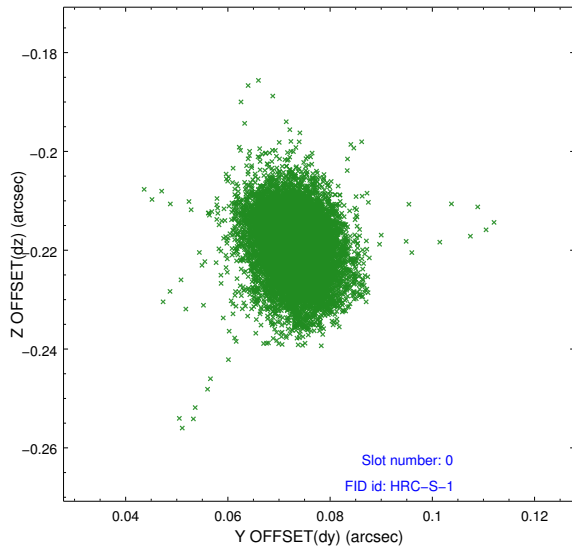


Time (s)

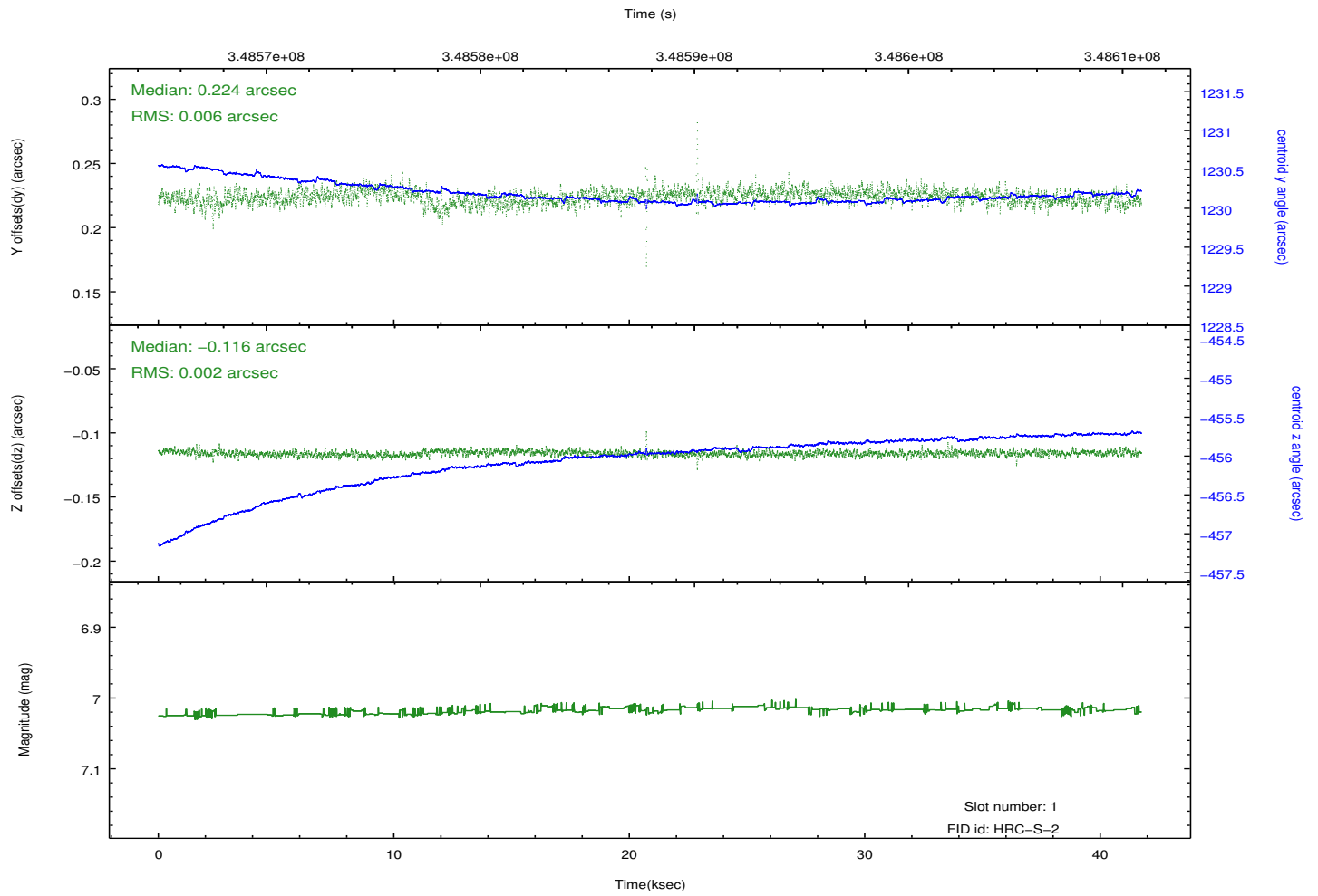
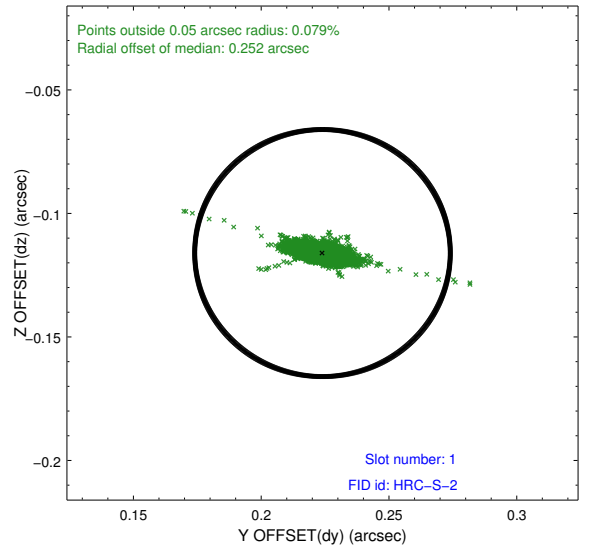
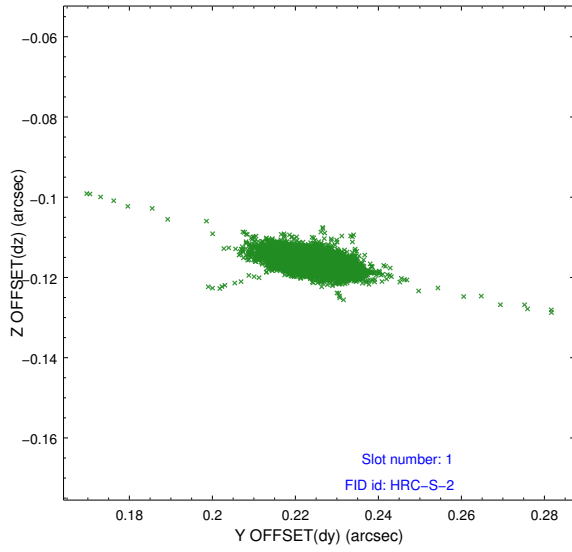


## 2.5 FID Slots

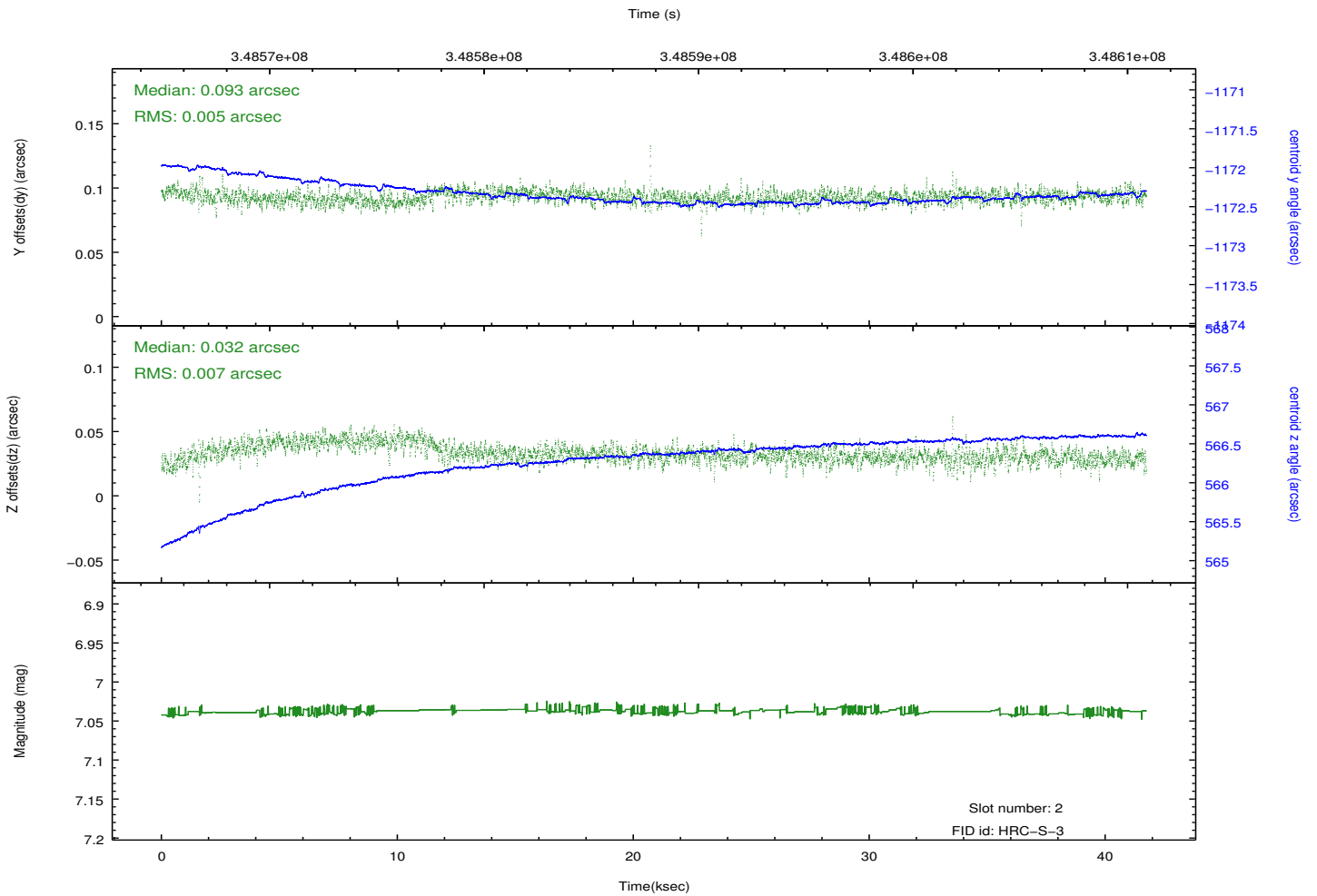
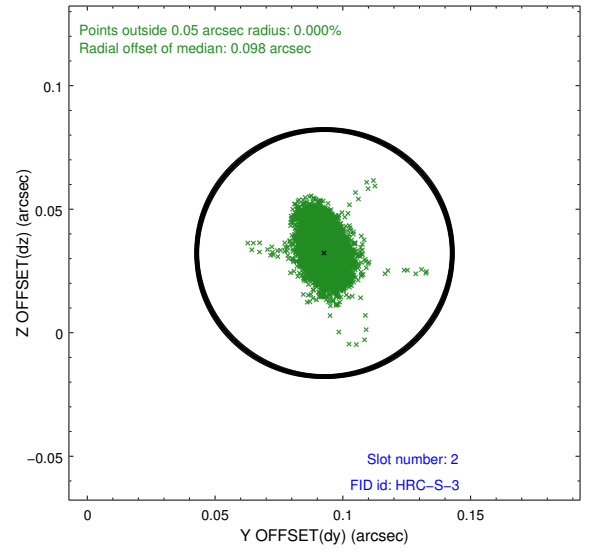
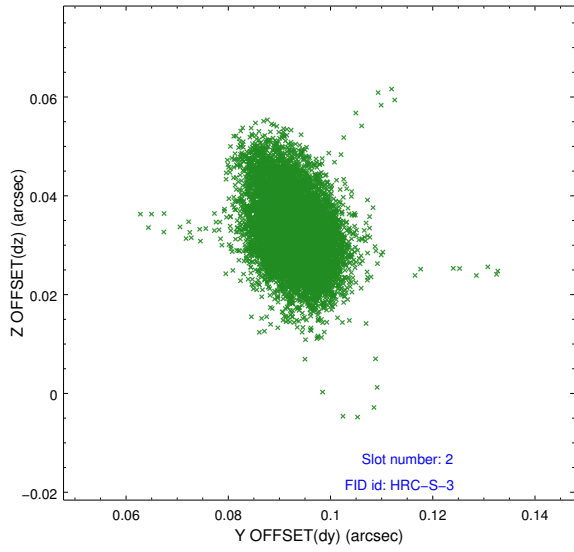
### 2.5.1 Slot 0



## 2.5.2 Slot 1

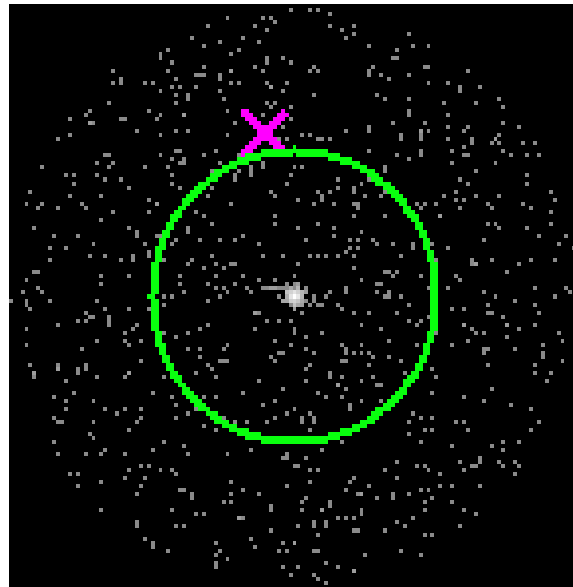


### 2.5.3 Slot 2



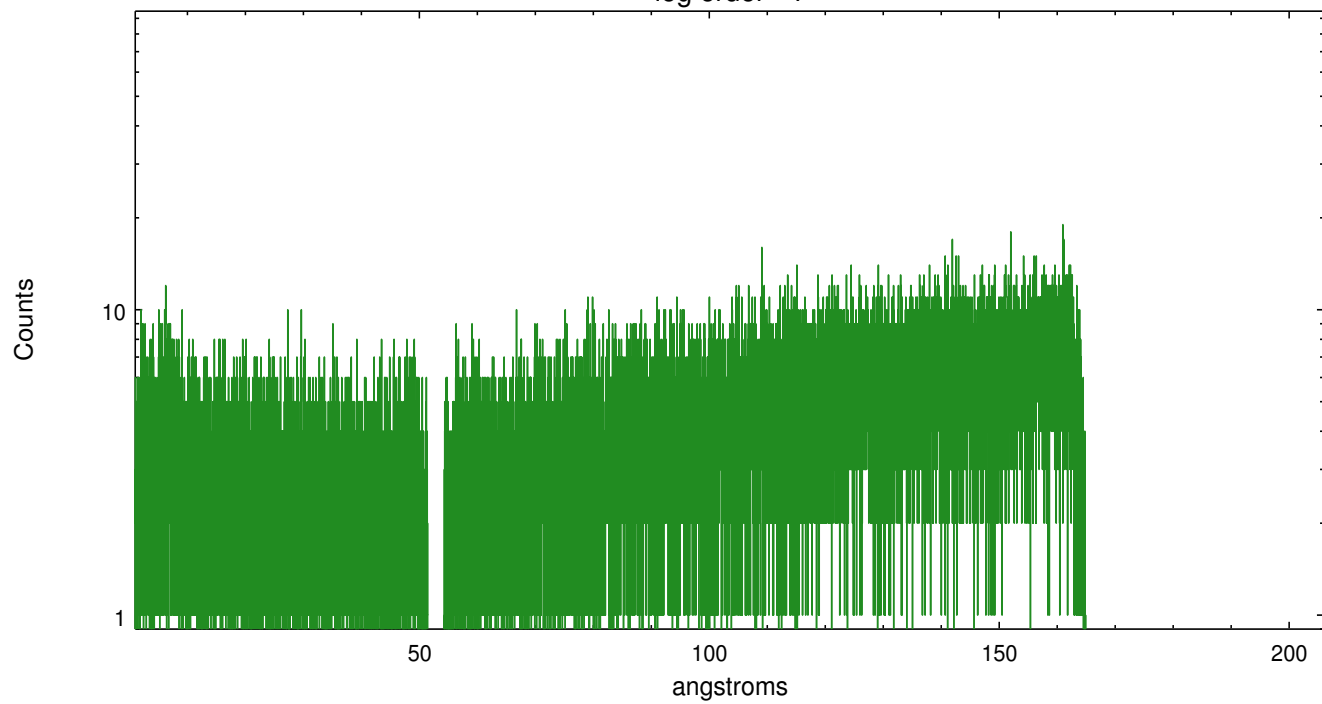
### 3 Gratings

#### 3.1 LETG Arm

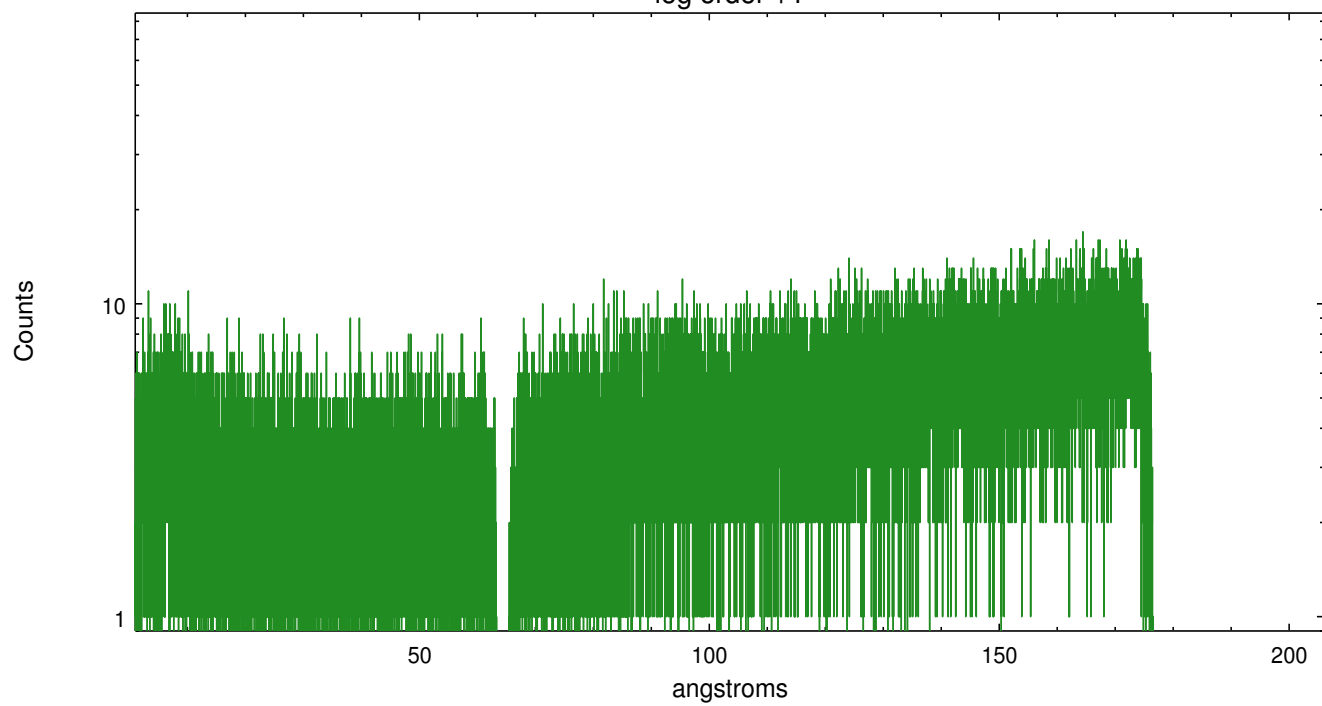


LETG Zero Order

leg order -1



leg order +1



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.08.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	41.749277

## A.2 Comments

Coordinated with Suzaku and HST