

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 14323 - L2 Version 3  
Chandra X-Ray Center

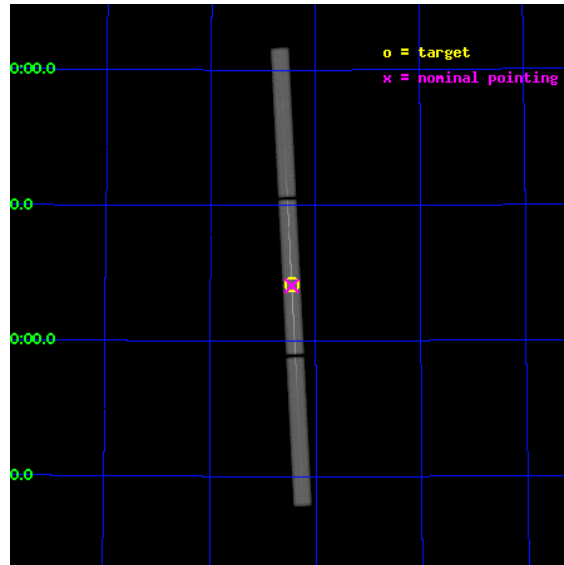
L2 Processing Date : Aug 10 2012

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# 1 Front

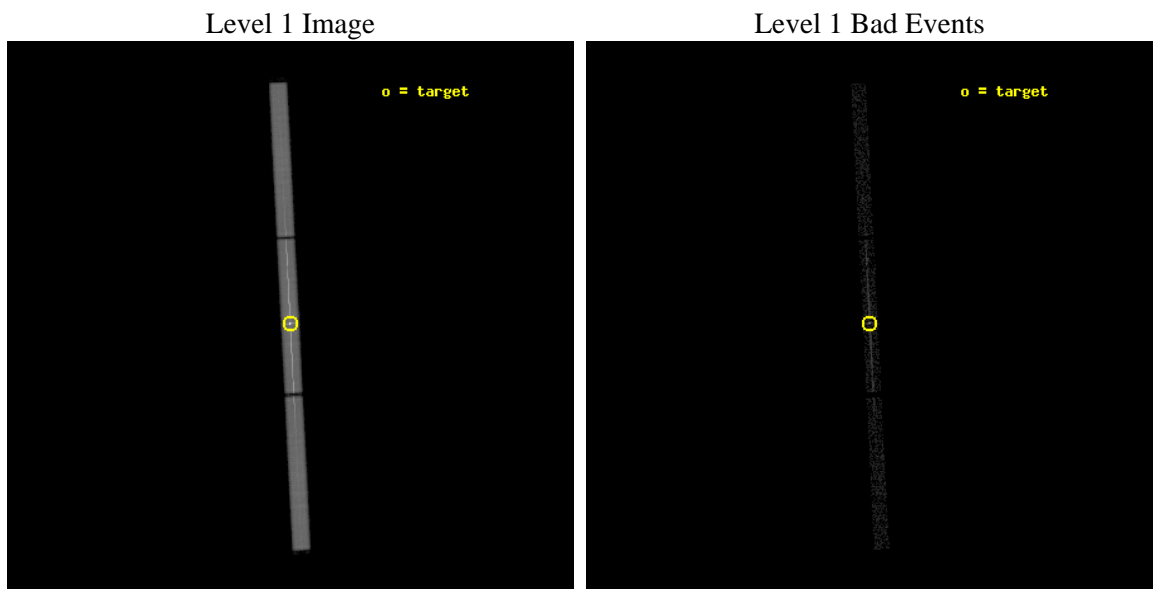
seq_num	790242	Sequence number
obs_id	14323	Observation id
title	AO-13 Calibration Observations of Mkn421 to Calibrate the New HRC-S HV Setting	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	MKN421[Voltage:current default]	Source name
ra_targ	166.113333	Observer's specified target RA [deg]
dec_targ	38.208806	Observer's specified target Dec [deg]
ra_nom	166.11283423171	Nominal RA [deg]
dec_nom	38.204206479714	Nominal Dec [deg]
roll_nom	267.02518321807	Nominal Roll [deg]
revision	3	Processing version of data
ontime	10183.375543475	[s]
livetime	10089.296146946	Ontime multiplied by DTCOR
l2events	825307	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	10000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	10183.375543475	[s]
caldbver	4.5.1.1	&#160	l1events	1107032	Number of level 1 events
date	2012-08-10T06:24:24	Date and time of file creation			
revision	3	Processing version of data			

### 2.1.3 Events

Level 1 Events

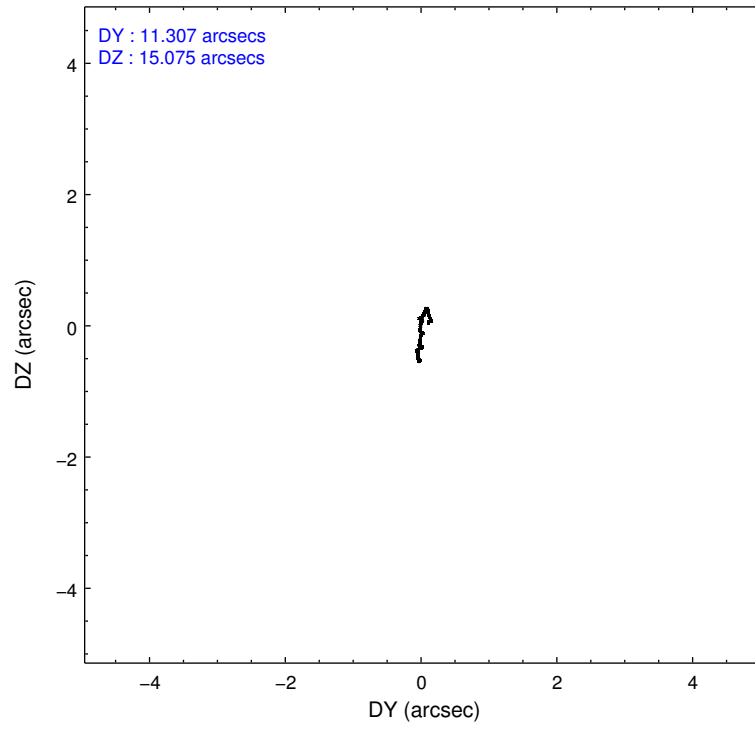
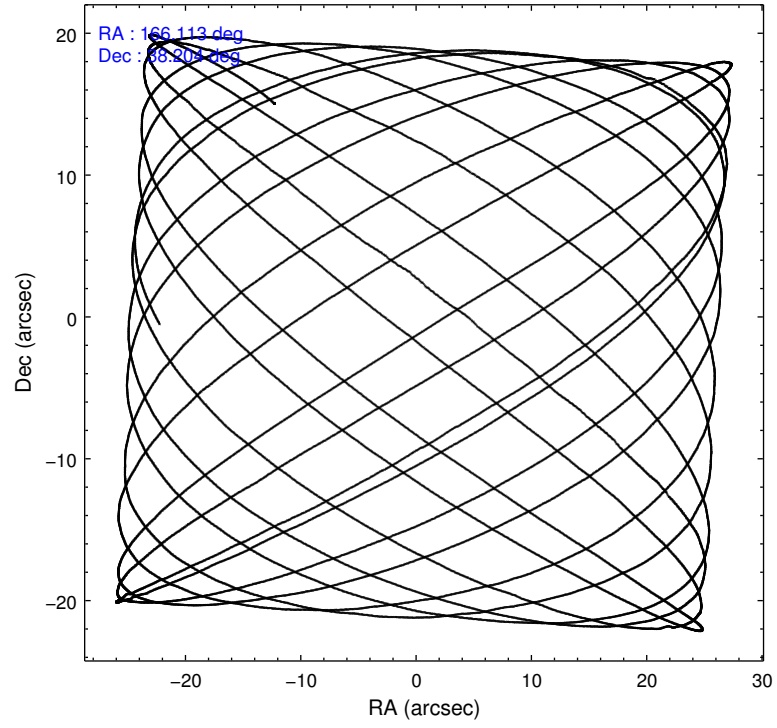
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	310577	480823	315632
rejected events	11947	16604	12069
rejected %	3%	3%	3%

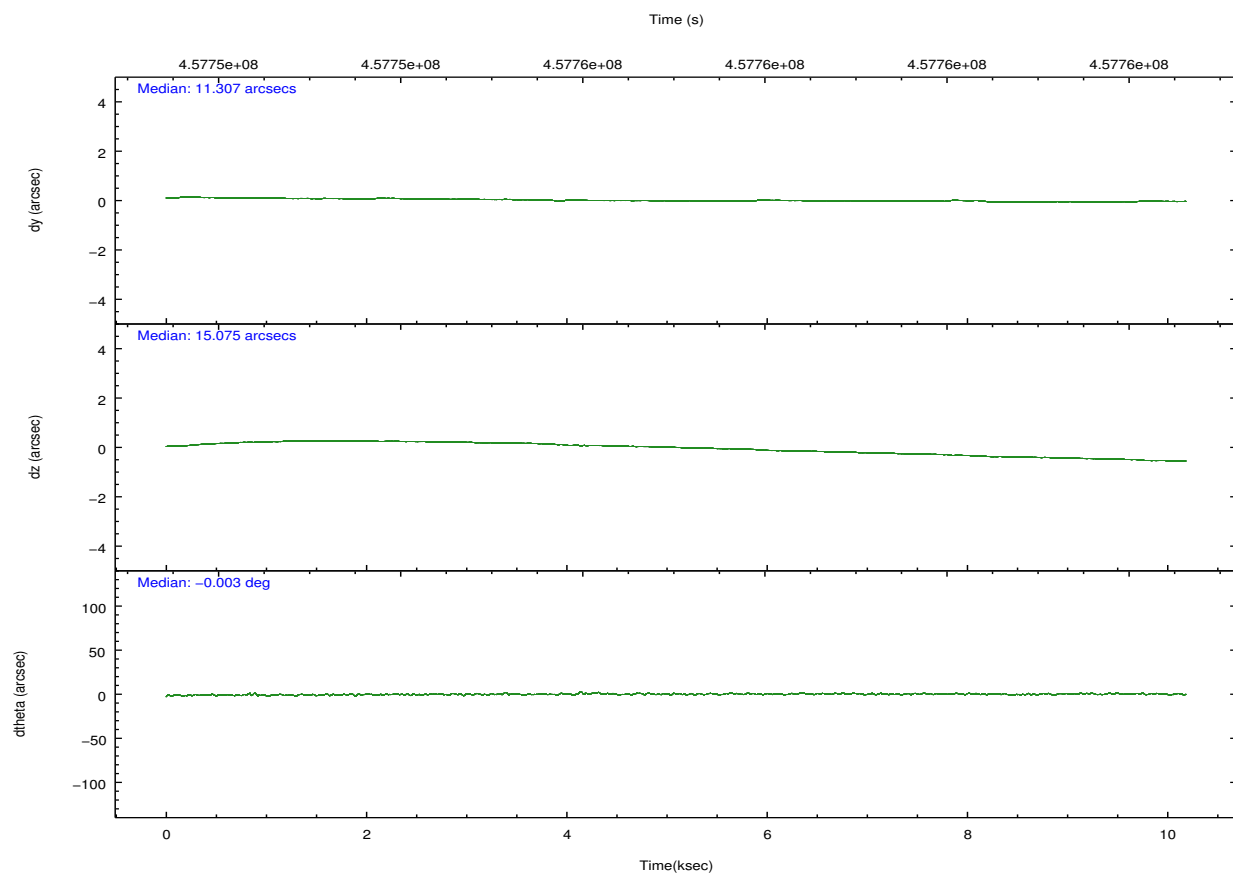
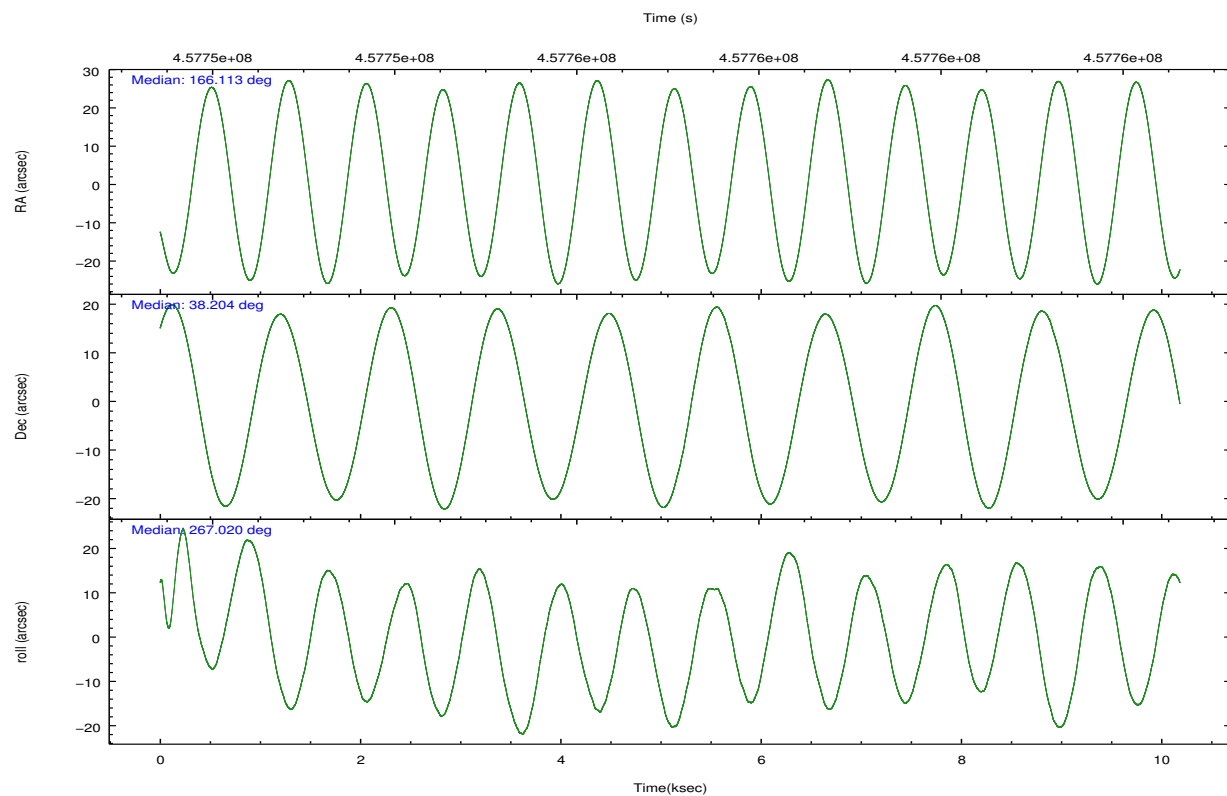


## 2.2 Compared Parameters

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	166.094724	166.1128342317106			
[deg] Pointing Dec	38.228947	38.20420647971413			
[deg] Pointing Roll	266.969050	267.0251832180672			
[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)	457752119.184000	457751652.36541			
Observation start date	2012-07-04T01:20:52	2012-07-04T01:14:12			
[s] Observation end time (MET)	457762119.184000	457762252.40347			
Observation end date	2012-07-04T04:07:32	2012-07-04T04:10:52			

## 2.3 Aspect



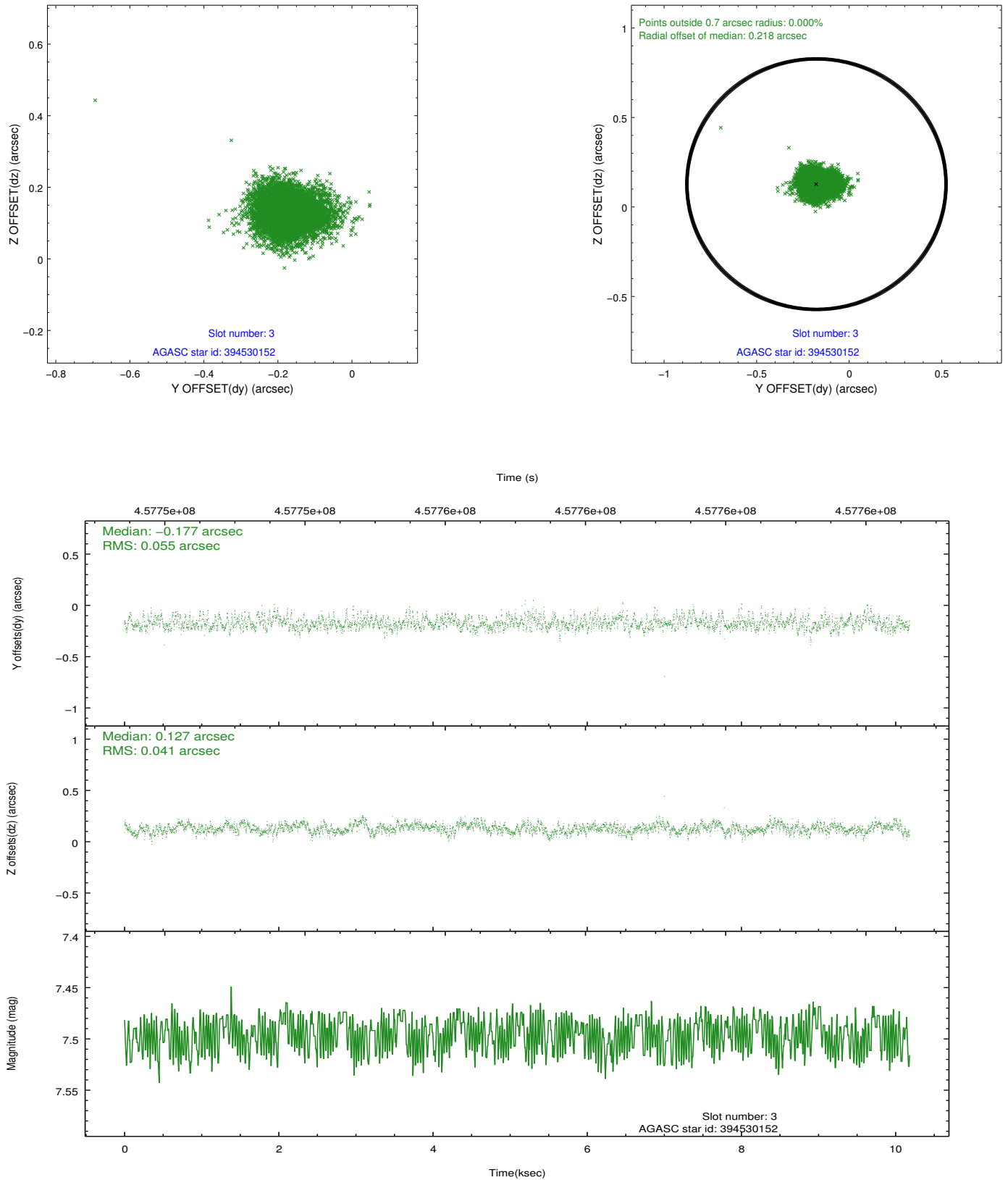


### Slot Statistics

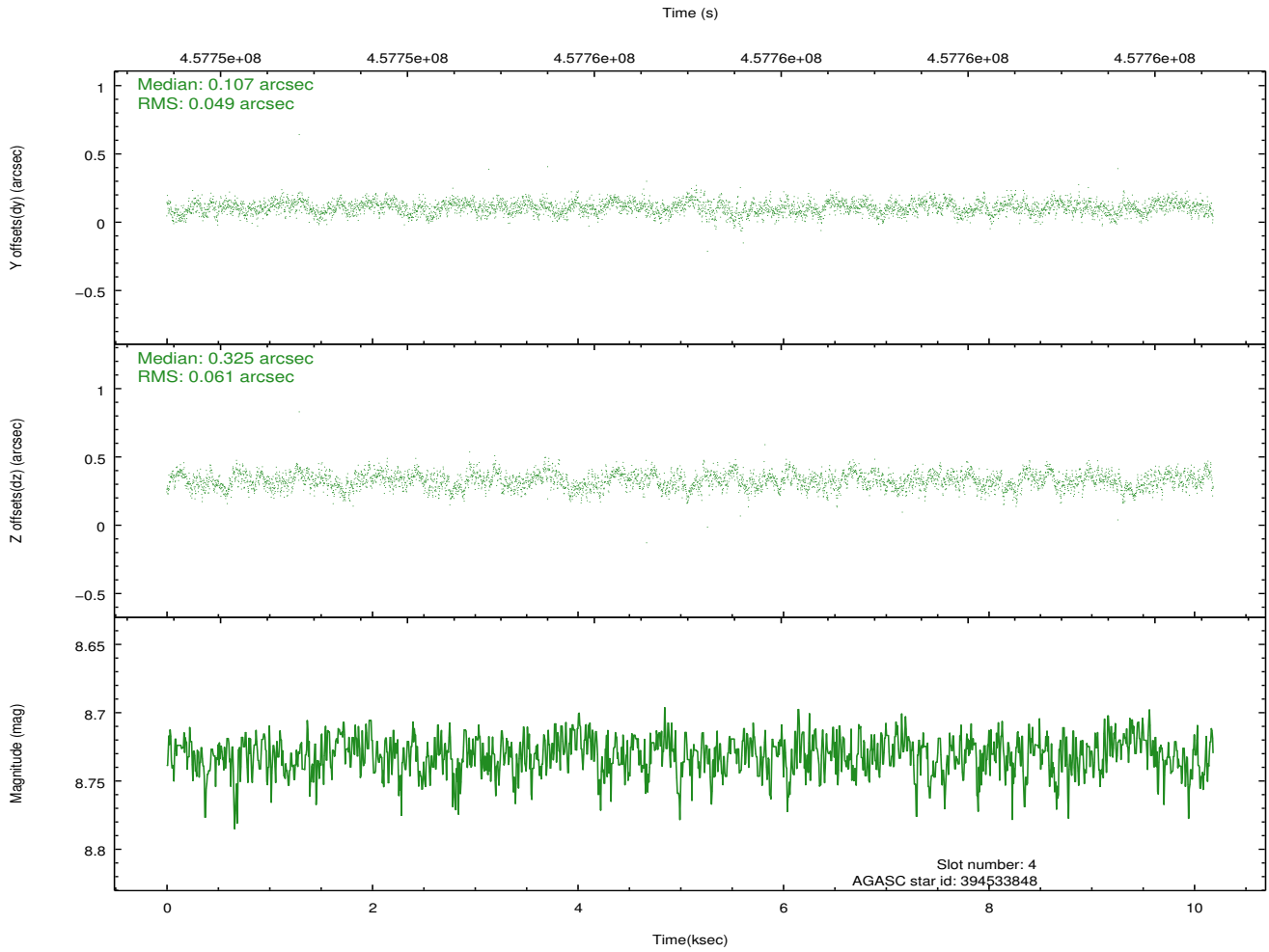
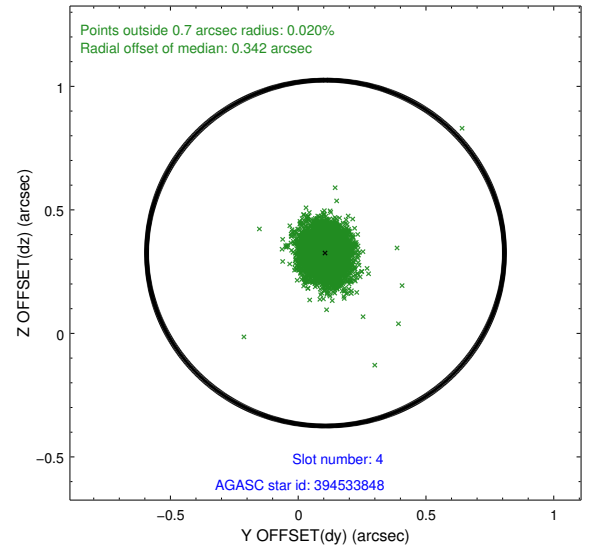
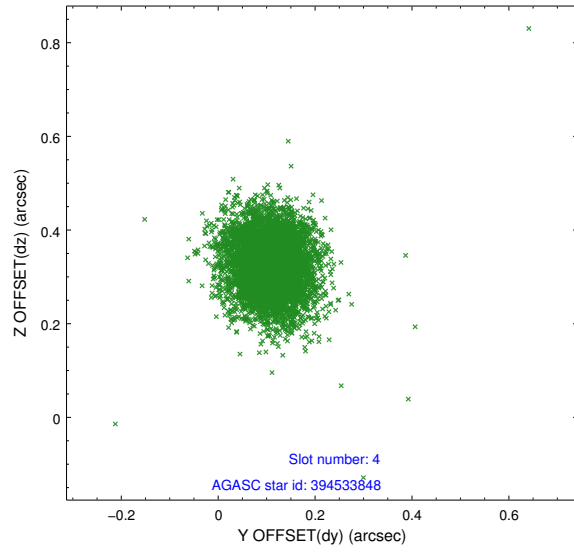
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-S-1	7.02	2484	0.052	-0.192	0.008	0.013	0.000000	0.000000	-1165.65	-463.89
1	FID	HRC-S-2	7.00	2484	0.280	-0.131	0.006	0.012	0.000000	0.000000	1233.79	-456.66
2	FID	HRC-S-3	7.02	2484	0.058	0.020	0.007	0.013	0.000000	0.000000	-1167.87	565.67
3	GUIDE	394530152	7.50	4968	-0.177	0.127	0.072	0.118	166.075805	38.868252	-2294.82	-174.26
4	GUIDE	394533848	8.73	4967	0.107	0.325	0.081	0.129	166.382906	38.276007	-213.67	800.80
5	GUIDE	394543960	9.80	4938	0.161	0.200	0.150	0.247	165.802757	37.787371	1631.04	-744.52
6	GUIDE	394546712	6.60	4969	-0.176	0.284	0.075	0.123	166.451462	38.394357	-648.67	973.18
7	GUIDE	394546720	6.42	4968	0.070	-0.944	0.112	0.181	166.130115	38.241361	-49.19	97.31

## 2.4 Star Slots

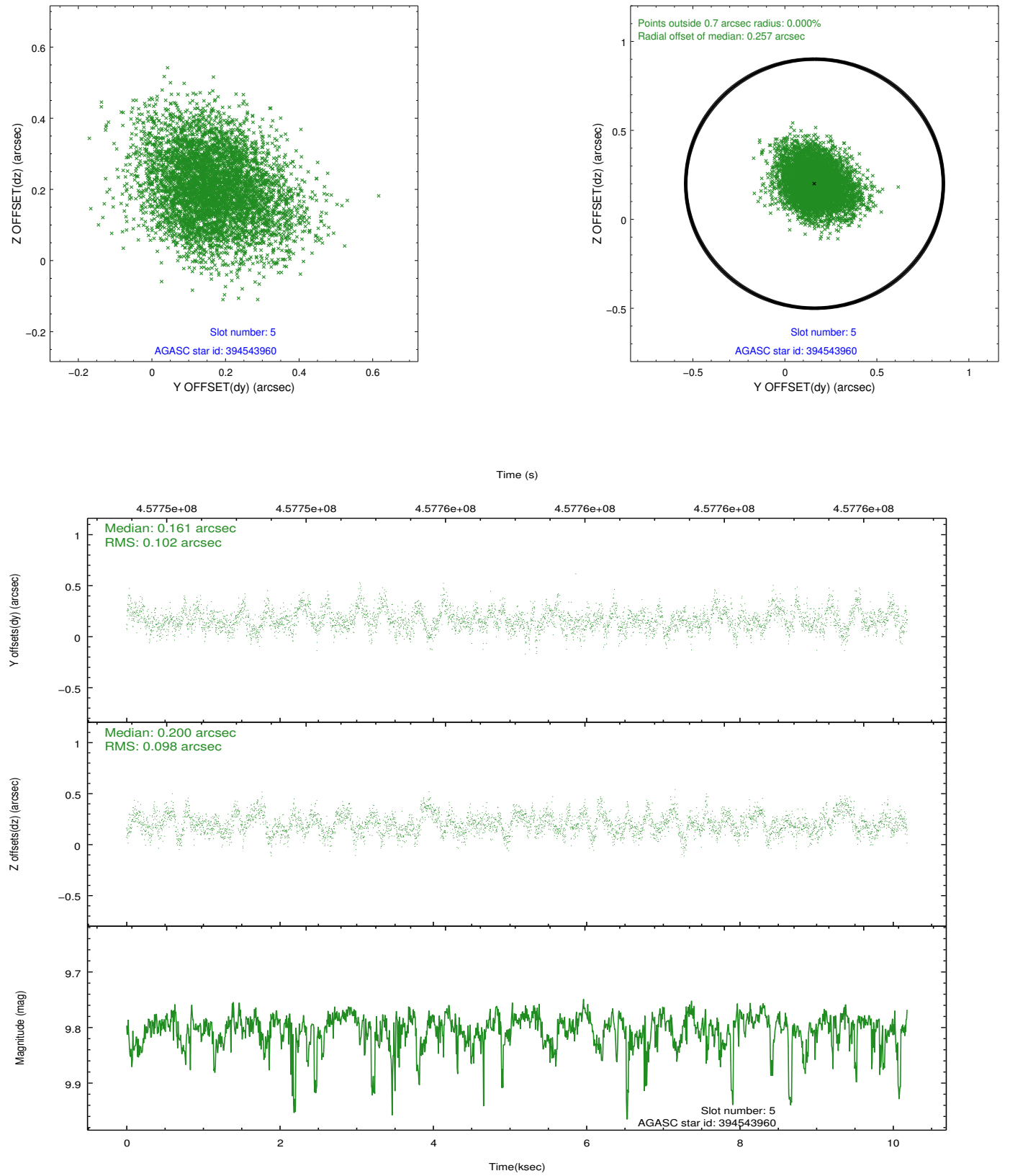
### 2.4.1 Slot 3



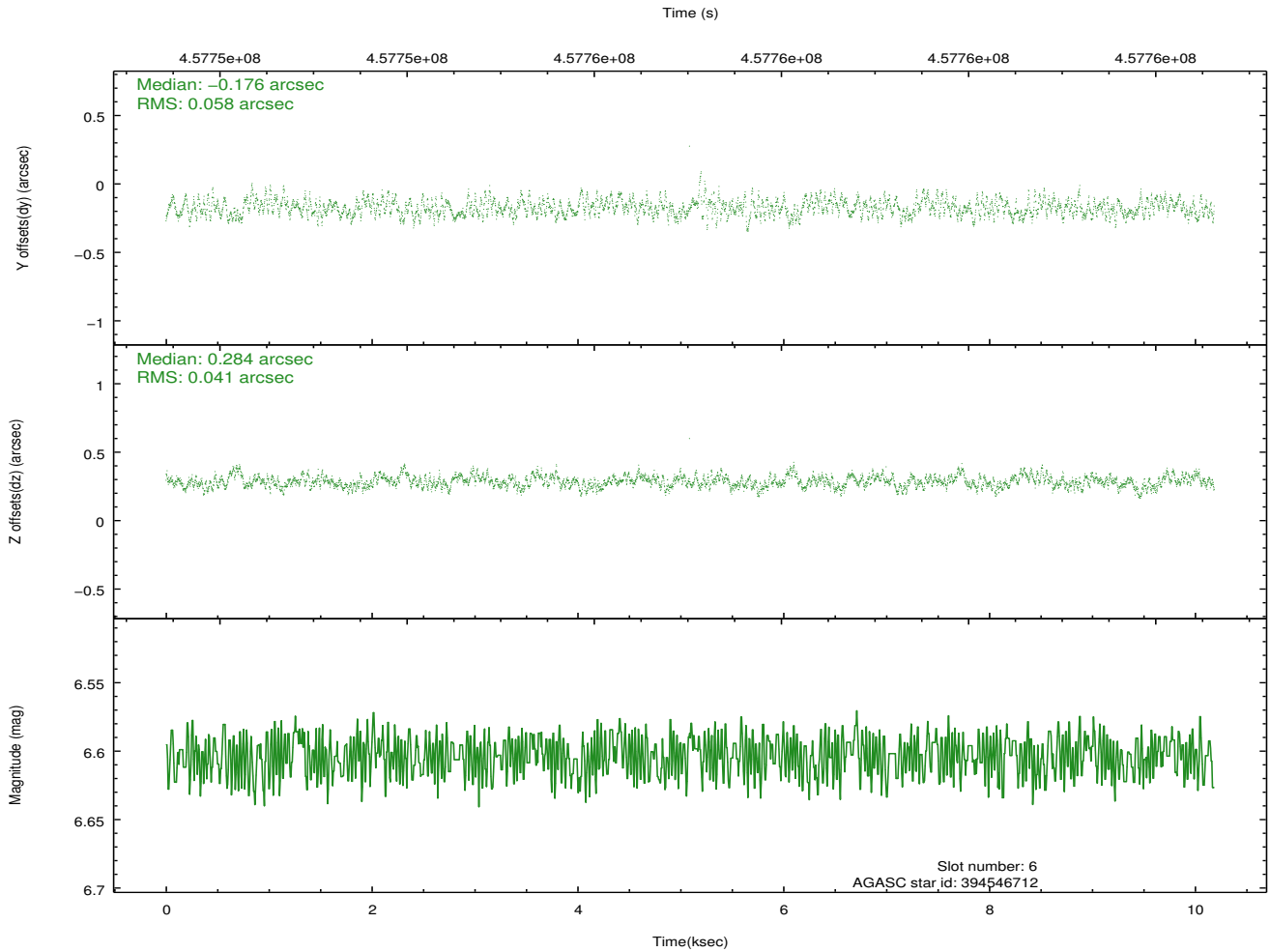
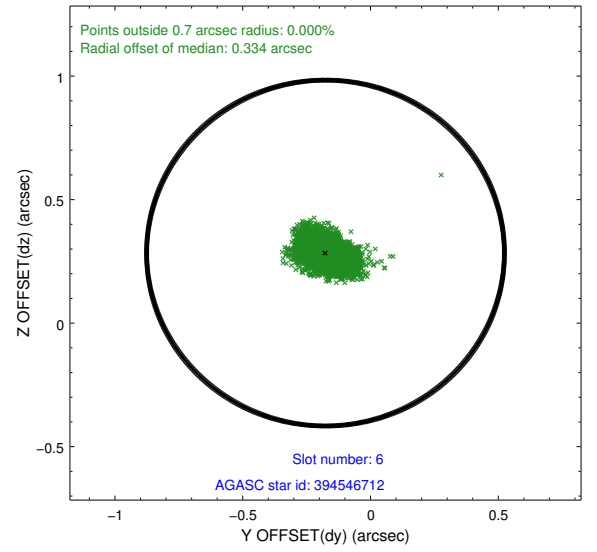
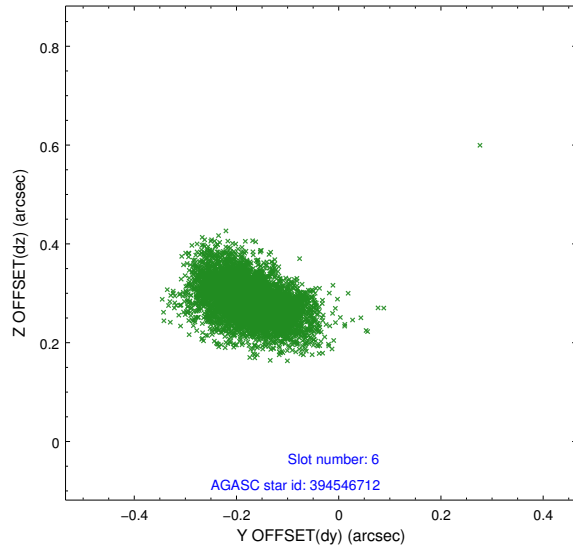
## 2.4.2 Slot 4



### 2.4.3 Slot 5

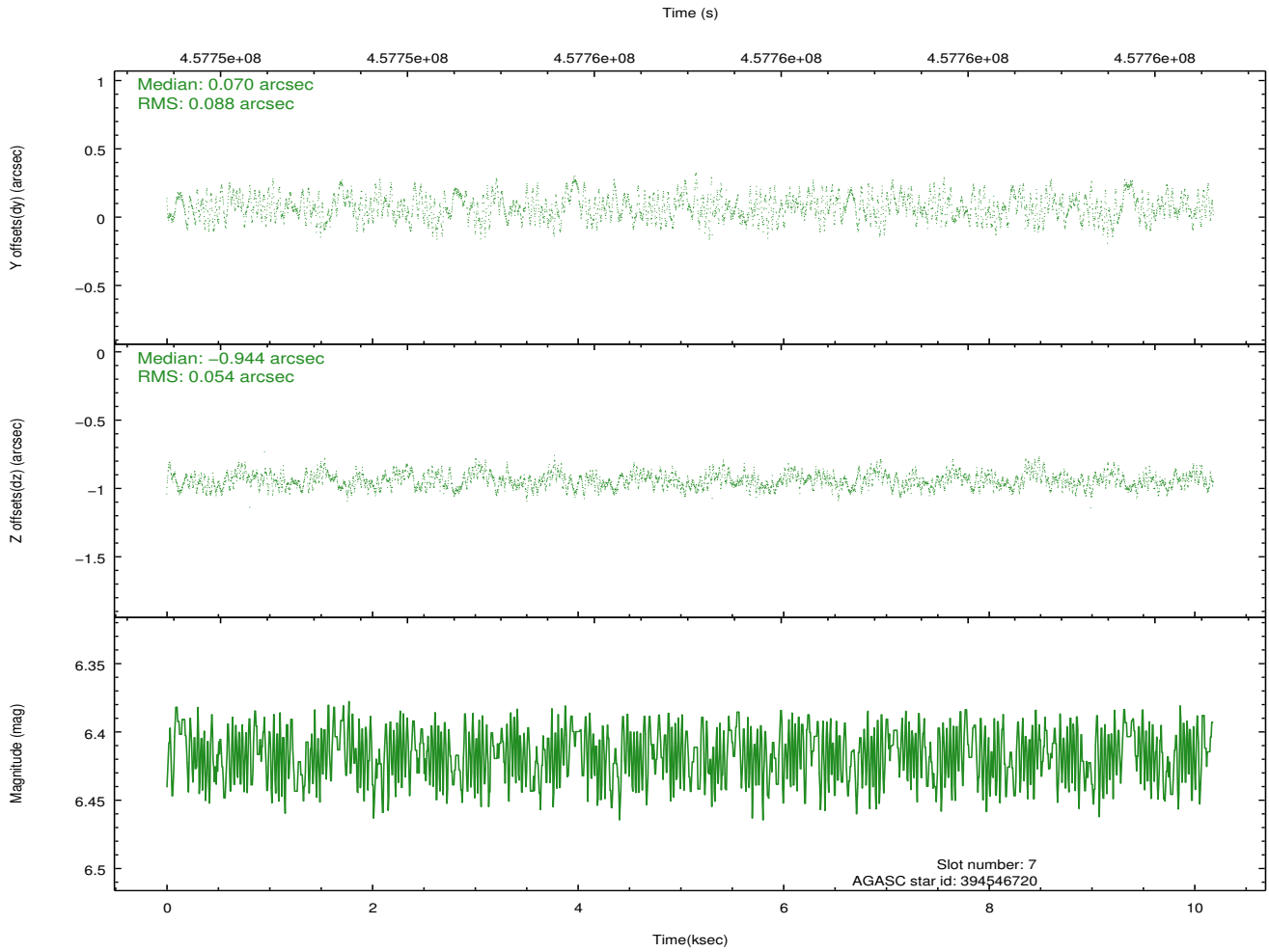
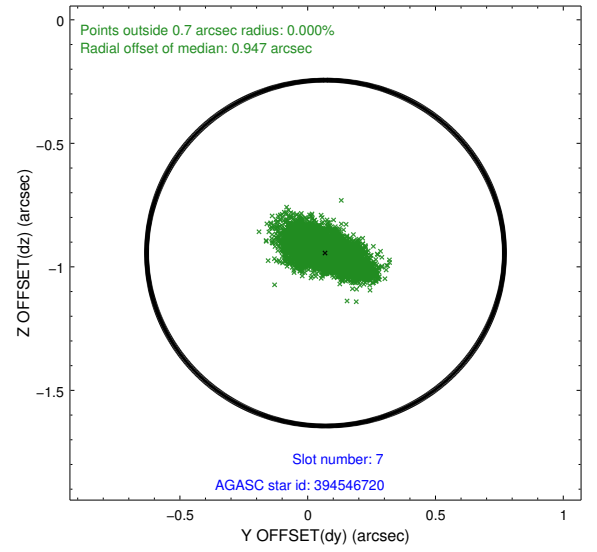
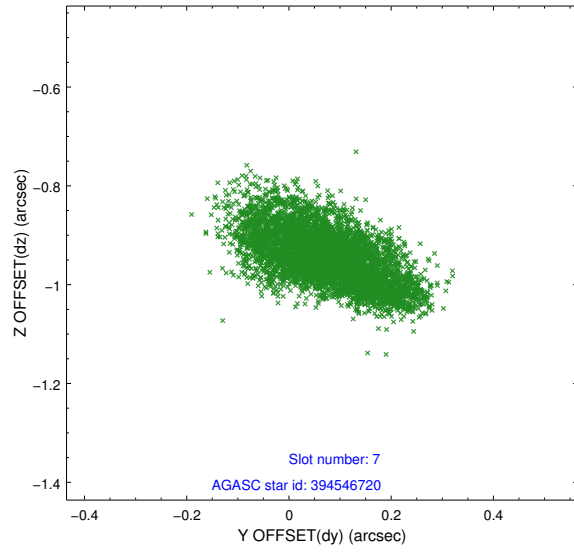


## 2.4.4 Slot 6



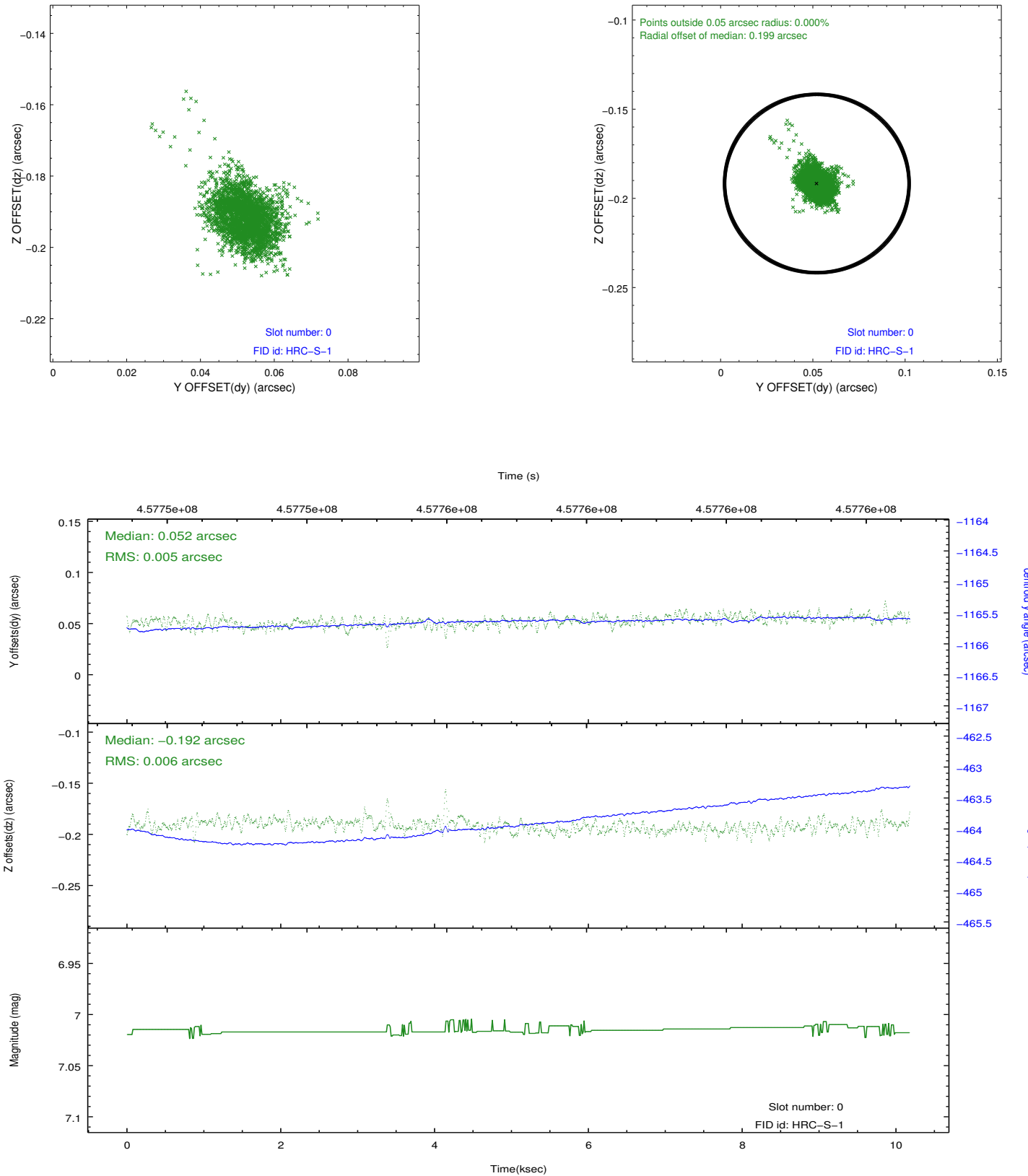


## 2.4.5 Slot 7

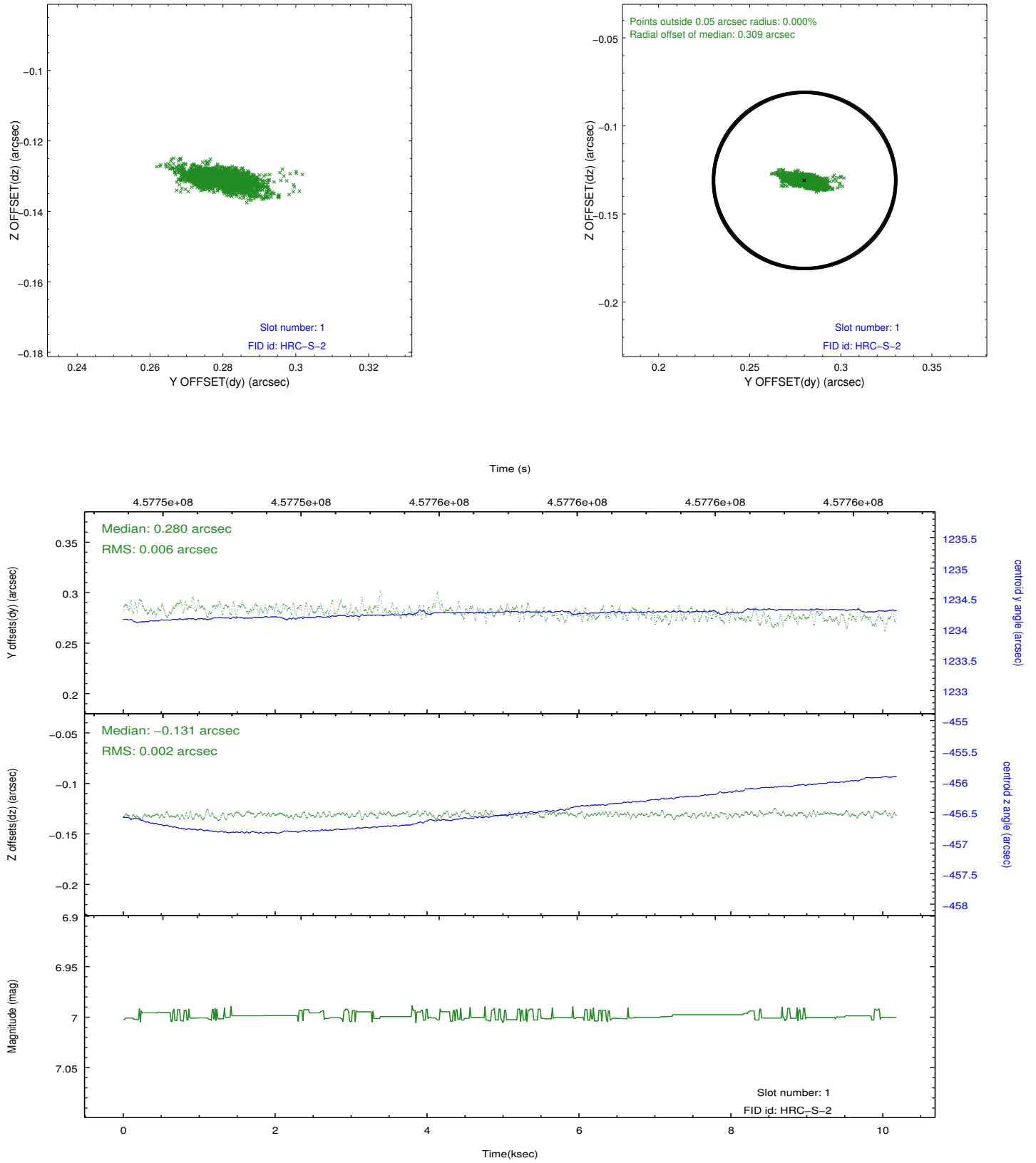


## 2.5 FID Slots

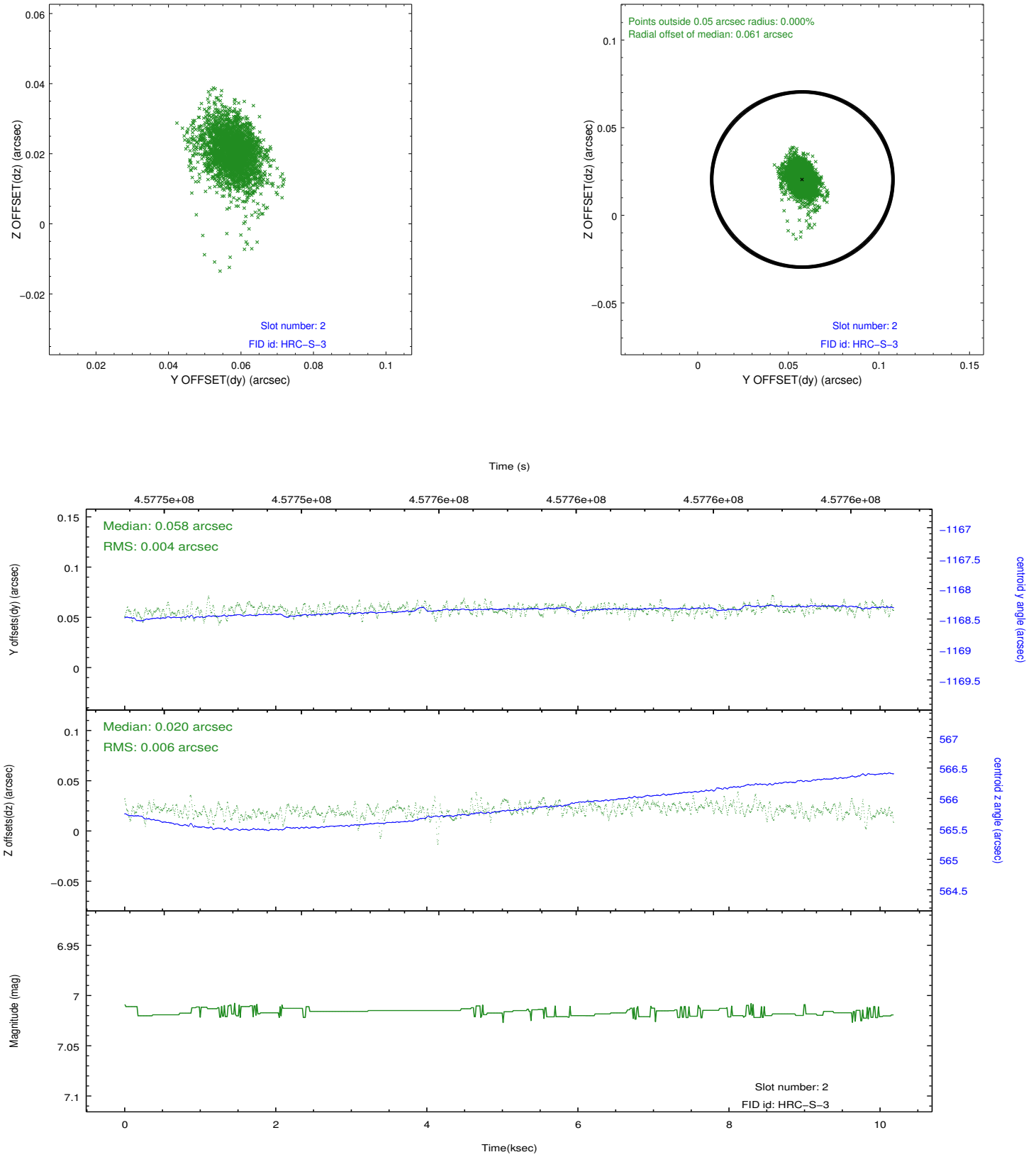
### 2.5.1 Slot 0



## 2.5.2 Slot 1

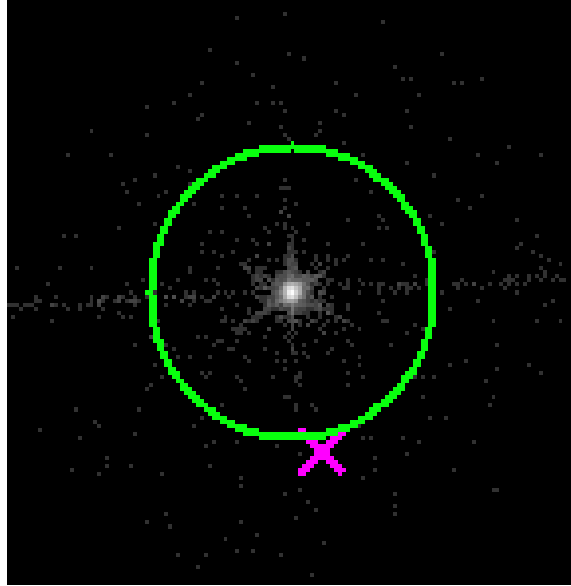


### 2.5.3 Slot 2

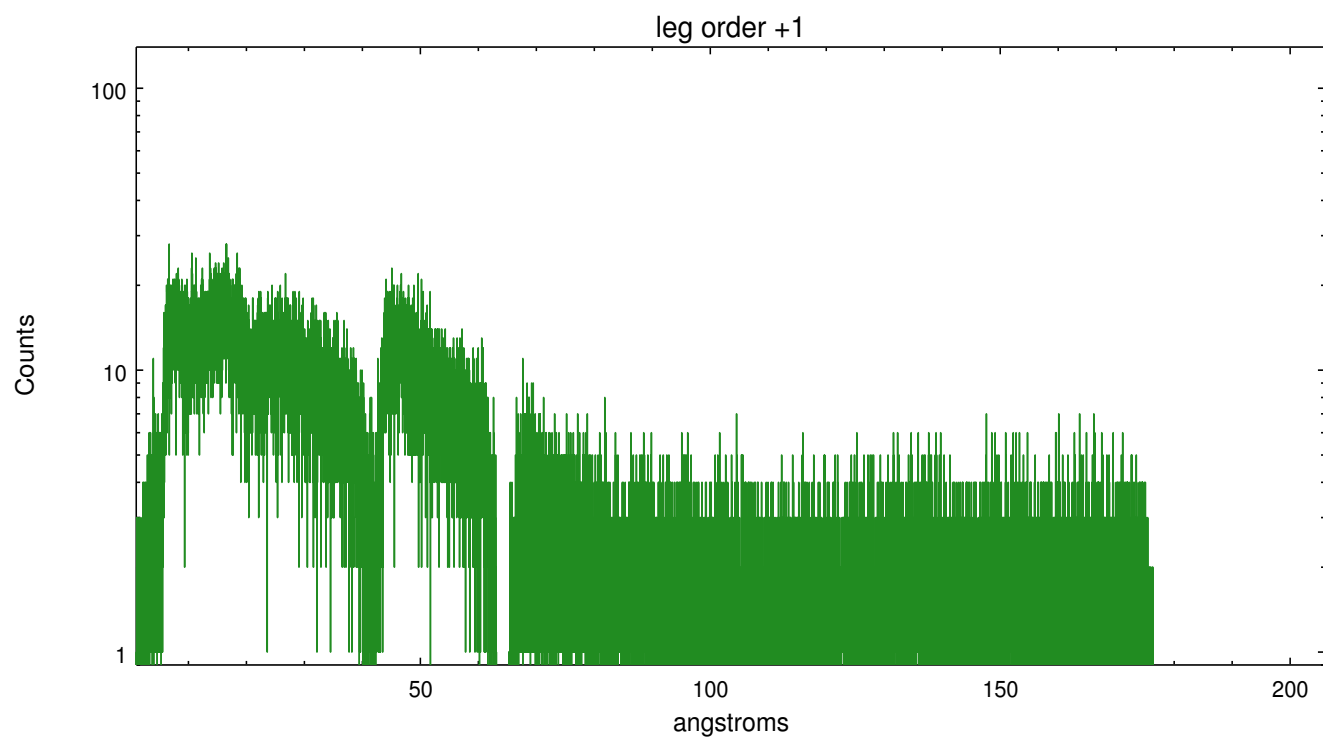
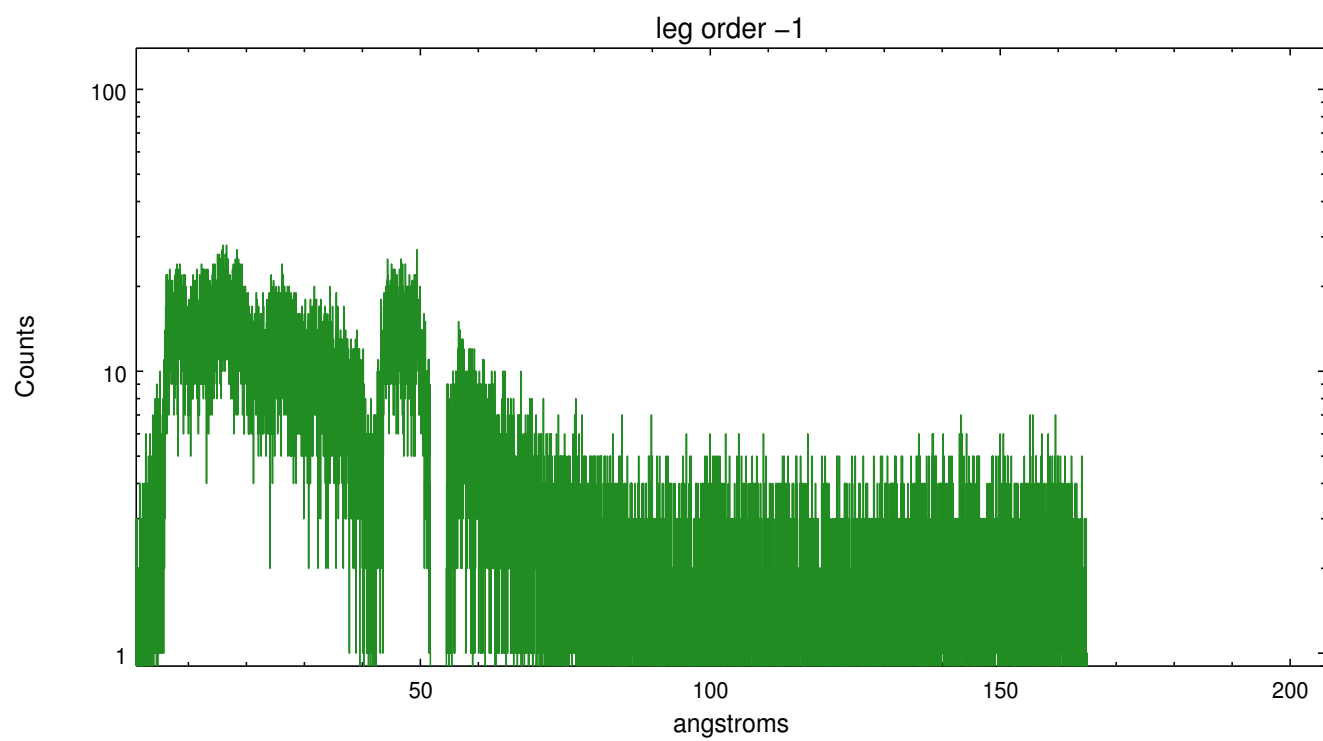


## 3 Gratings

### 3.1 LETG Arm



LETG Zero Order



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2012.08.10
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.183375543475

### A.2 Comments