

# V&V Reference Report

## L2 ASCDS Version : 10.4

Observation 17387 - L2 Version 1  
Chandra X-Ray Center

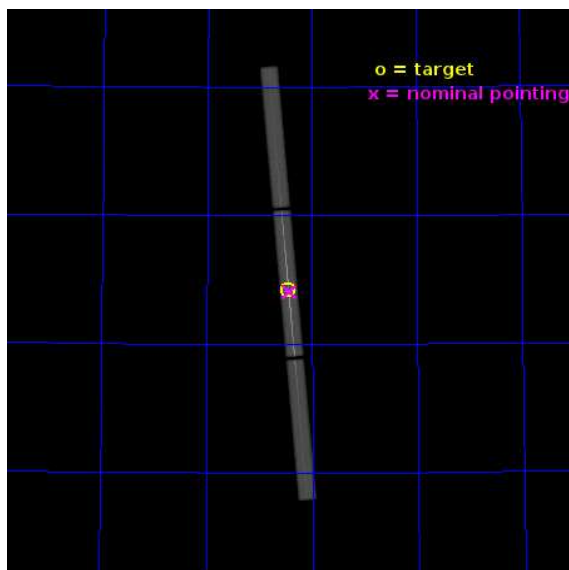
L2 Processing Date : Jul 2 2015

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# 1 Front

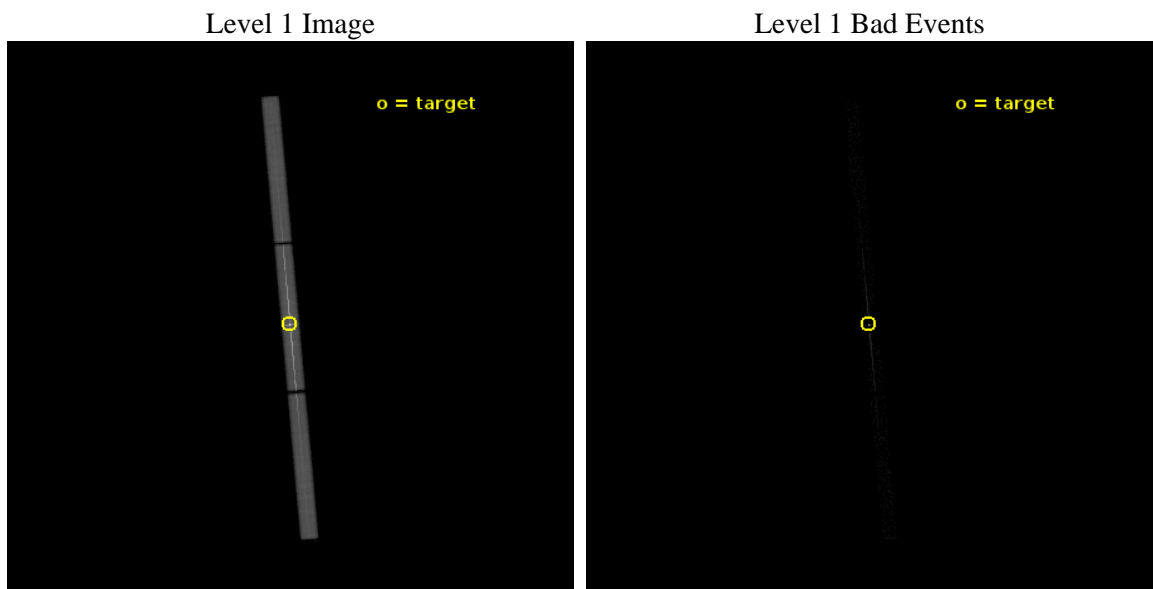
seq_num	790278	Sequence number
obs_id	17387	Observation id
title	AO-16 Calibration Observations of Mkn421	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	MKN421	Source name
ra_targ	166.113333	Observer's specified target RA [deg]
dec_targ	38.208806	Observer's specified target Dec [deg]
ra_nom	166.11270727802	Nominal RA [deg]
dec_nom	38.203842205995	Nominal Dec [deg]
roll_nom	265.01819670595	Nominal Roll [deg]
revision	1	Processing version of data
ontime	10179.275572777	[s]
livedtime	10094.386774664	Ontime multiplied by DTCOR
l2events	836030	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	10.4	Processing system revision	ontime	10179.275572777	[s]
caldsver	4.6.7	&#160	l1events	1020894	Number of level 1 events
date	2015-07-02T06:20:27	Date and time of file creation	tgmethod	TGDETECT	Method used to create src1a file
revision	1	Processing version of data	zo_pos	(32742.72, 32904.36)	src1a sky pixel position

### 2.1.3 Events

Level 1 Events

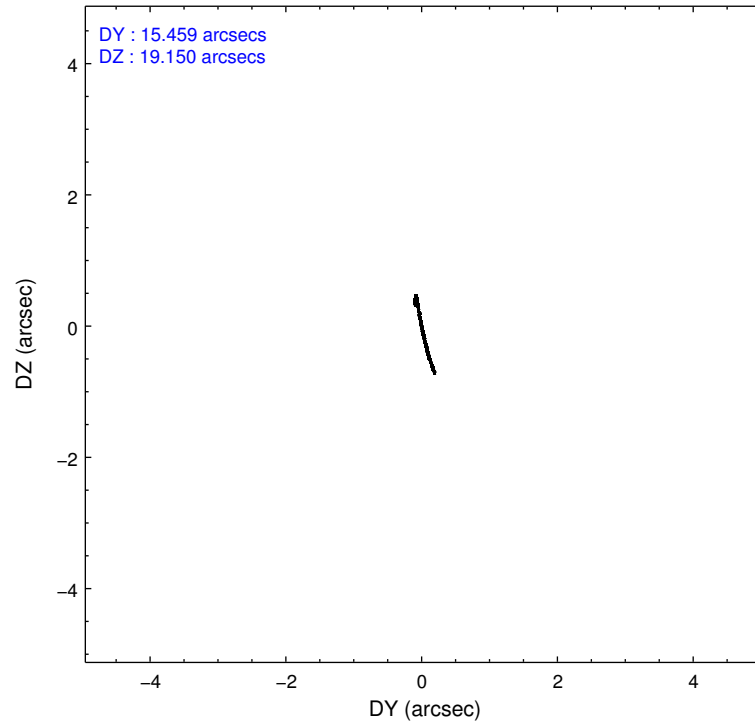
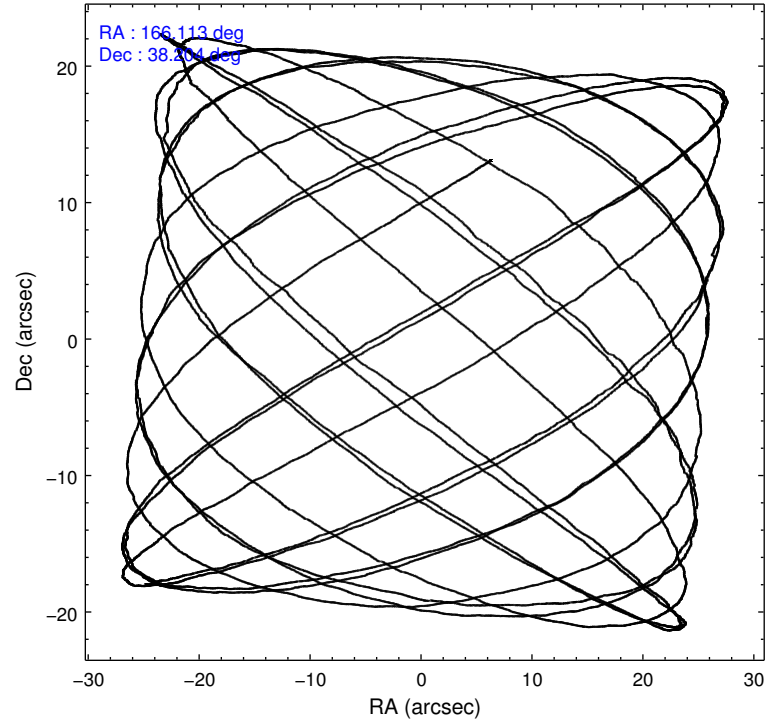
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	258259	499706	262929
rejected events	5291	10572	5606
rejected %	2%	2%	2%

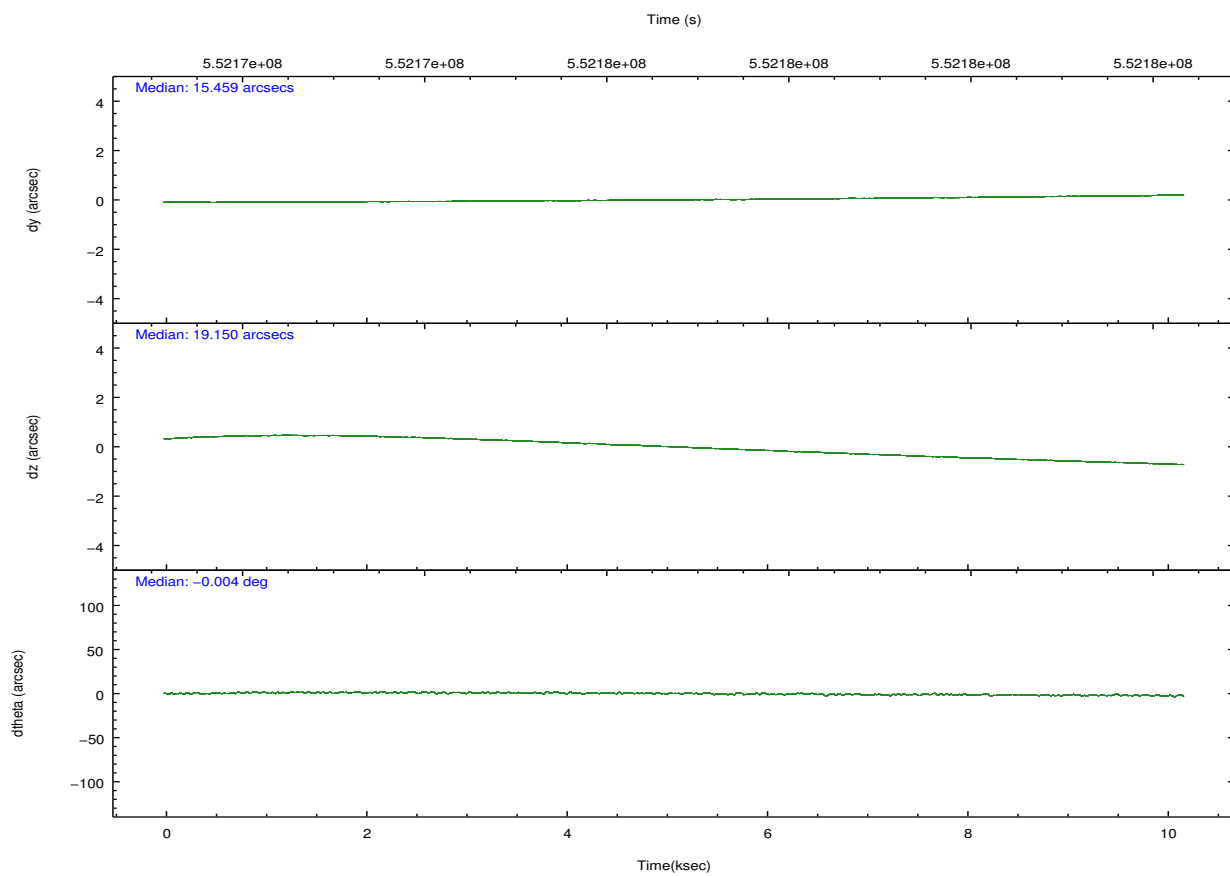
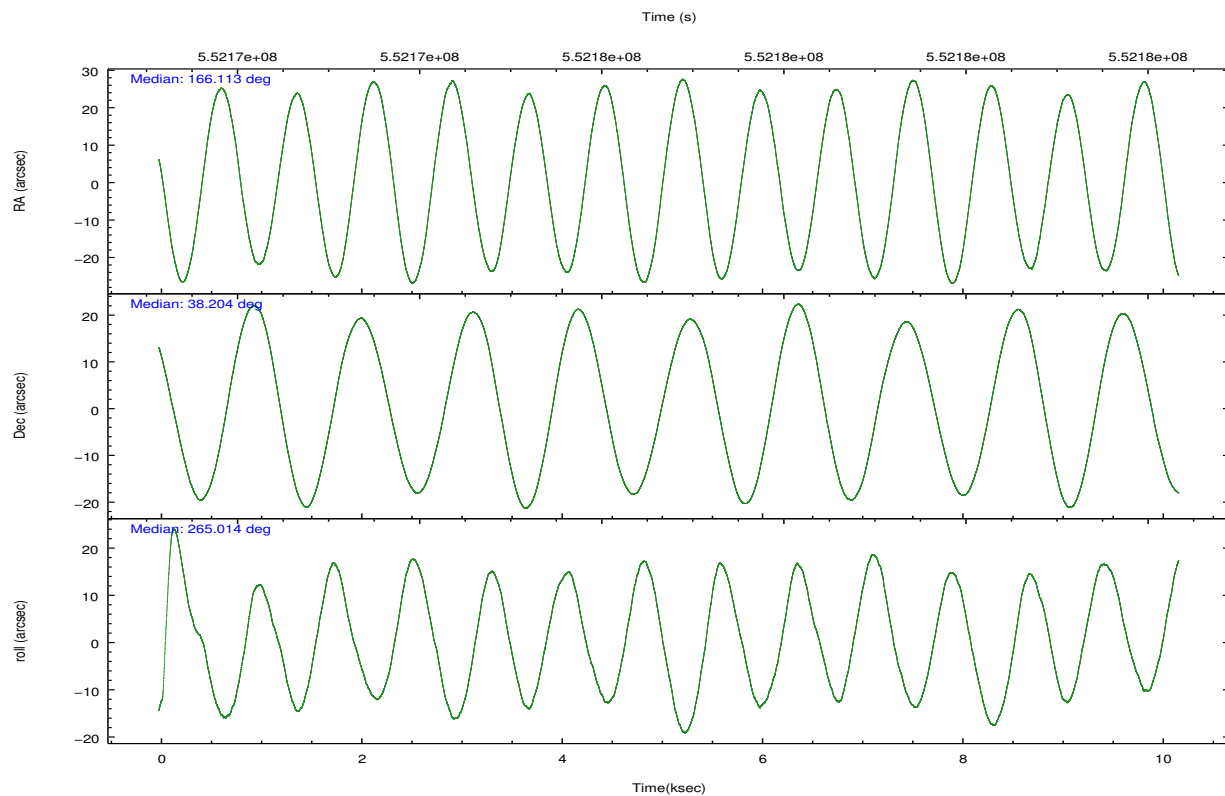


## 2.2 Compared Parameters

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	166.095634	166.1127072780203			
[deg] Pointing Dec	38.229443	38.20384220599517			
[deg] Pointing Roll	264.961429	265.0181967059468			
[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)	552171804.184000	552171338.08189			
Observation start date	2015-07-01T21:02:16	2015-07-01T20:55:38			
[s] Observation end time (MET)	552181804.184000	552181937.09499			
Observation end date	2015-07-01T23:48:56	2015-07-01T23:52:17			

## 2.3 Aspect



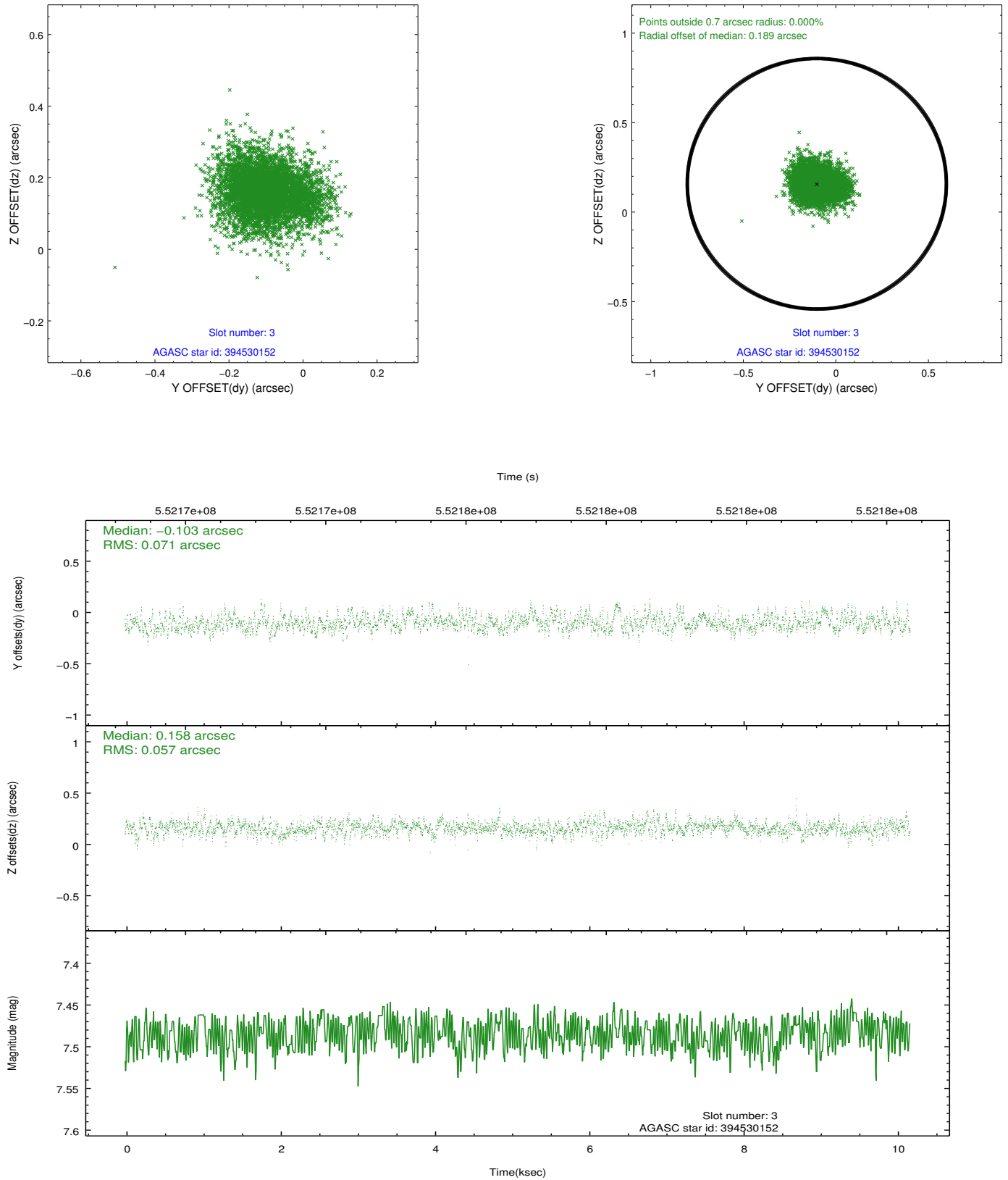


### Slot Statistics

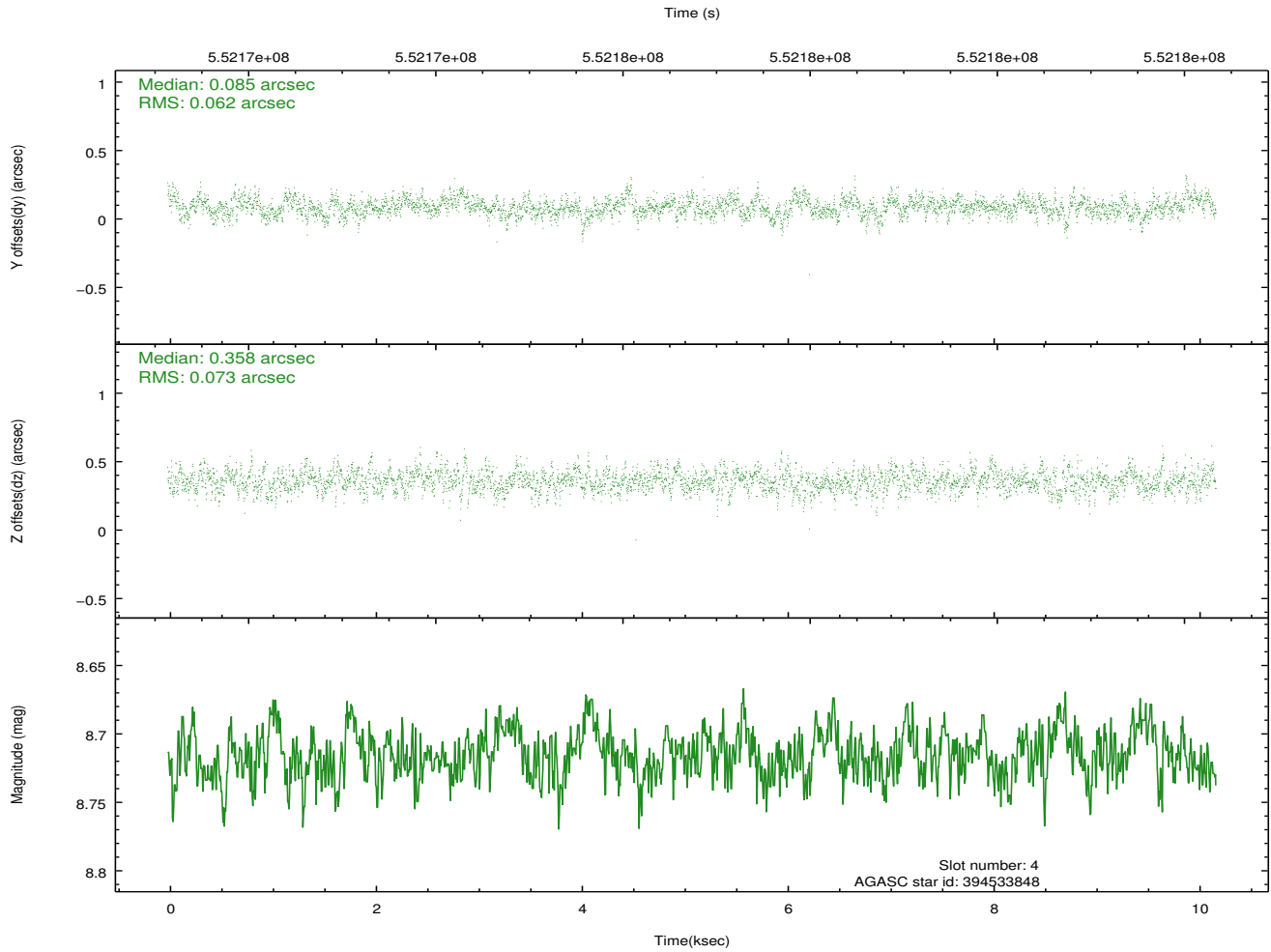
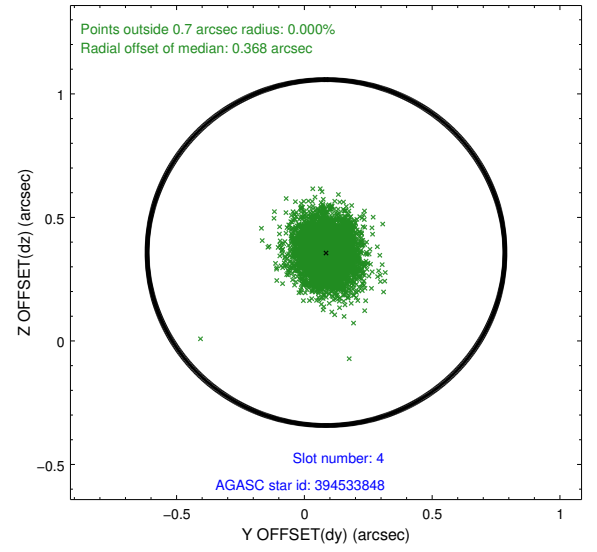
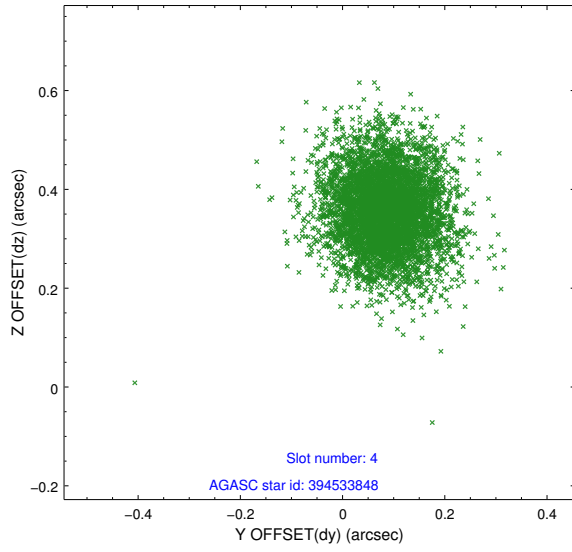
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	7.06	2483	0.018	-0.206	0.016	0.027	0.000000	0.000000	-1169.93	-468.14
1	FID		HRC-S-2	7.03	2483	0.277	-0.115	0.006	0.011	0.000000	0.000000	1229.54	-460.86
2	FID		HRC-S-3	7.05	2483	0.094	0.018	0.017	0.027	0.000000	0.000000	-1172.09	561.42
3	GUIDE	used	394530152	7.48	4967	-0.103	0.158	0.096	0.160	166.075805	38.868252	-2285.95	-257.04
4	GUIDE	used	394533848	8.72	4966	0.085	0.358	0.100	0.167	166.382906	38.276007	-240.37	789.21
5	GUIDE	used	394543960	9.78	4952	0.191	0.222	0.183	0.297	165.802757	37.787371	1657.47	-689.61
6	GUIDE	used	394546712	6.59	4967	-0.223	0.325	0.104	0.177	166.451462	38.394357	-681.00	947.08
7	GUIDE	used	394546720	6.41	4965	0.038	-1.061	0.124	0.203	166.130115	38.241361	-51.33	92.77

## 2.4 Star Slots

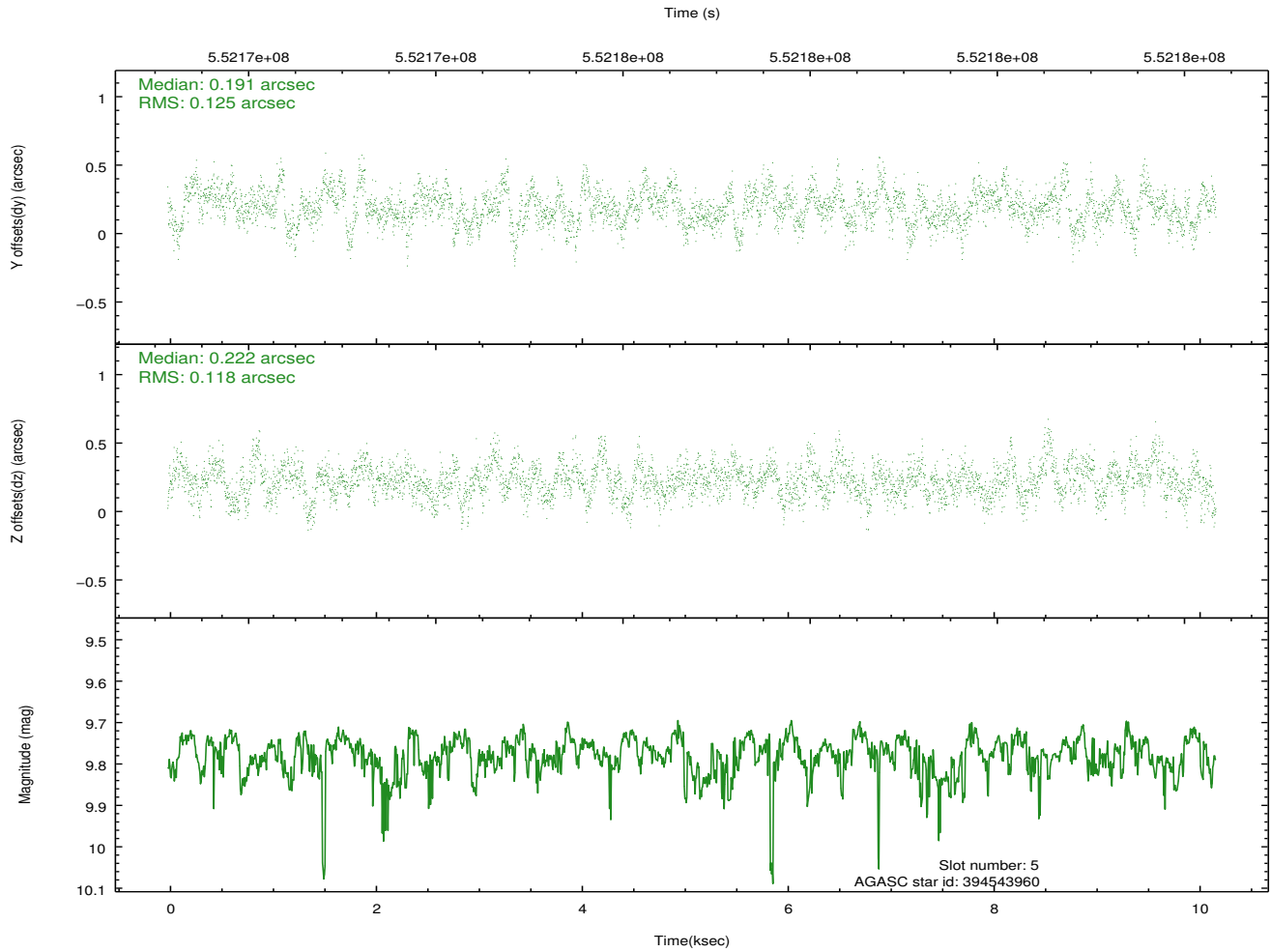
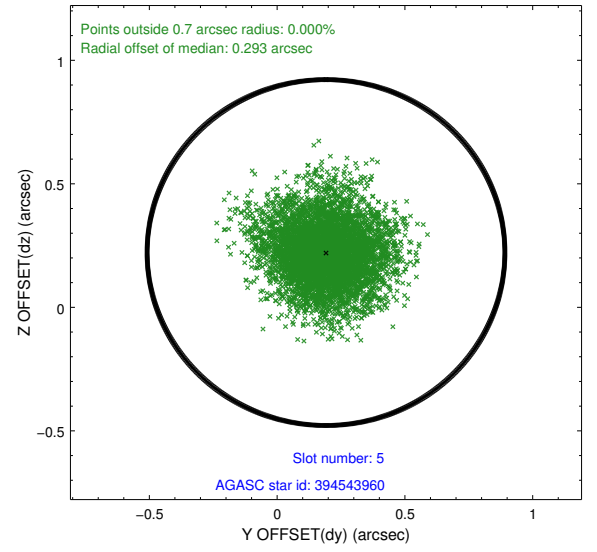
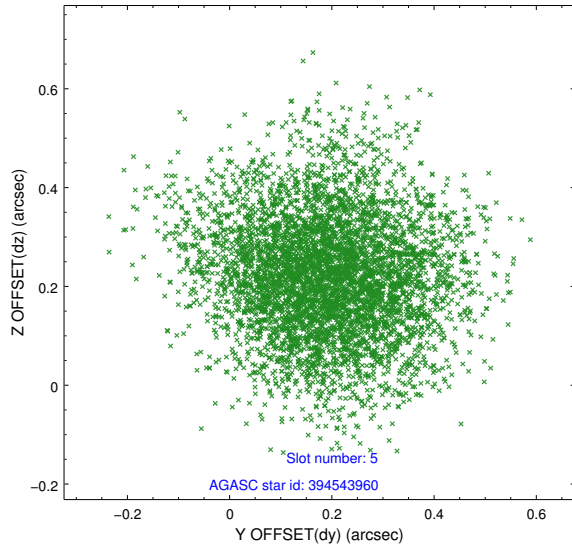
### 2.4.1 Slot 3



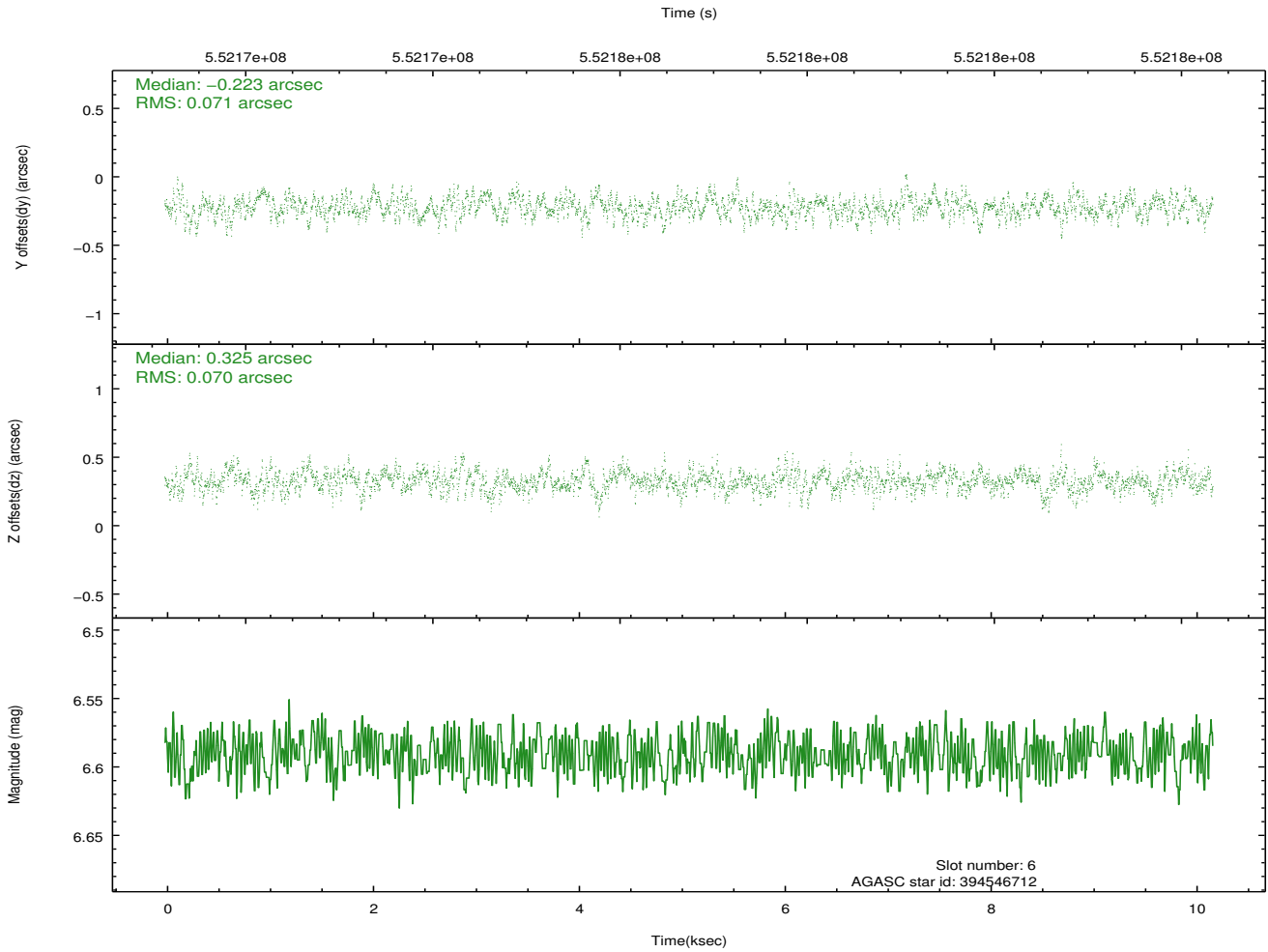
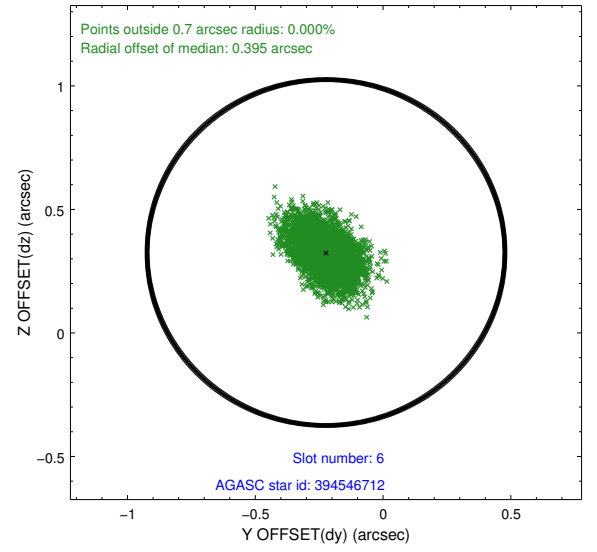
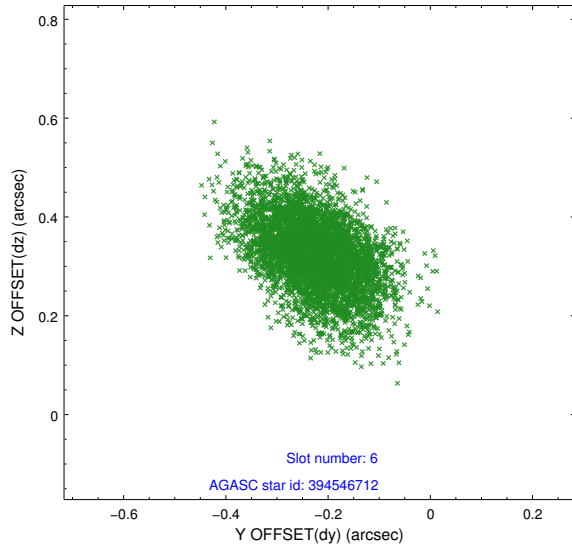
## 2.4.2 Slot 4



### 2.4.3 Slot 5

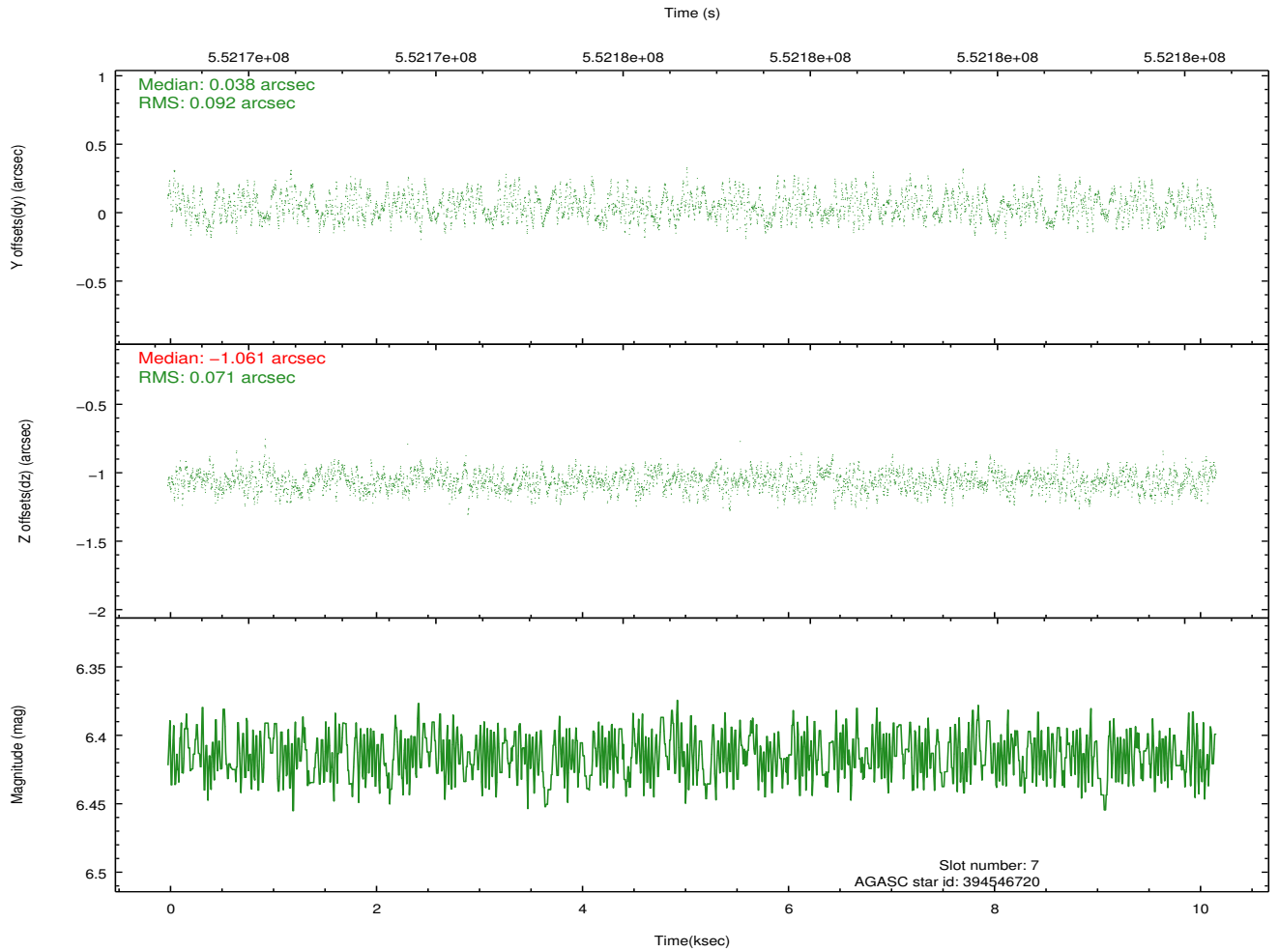
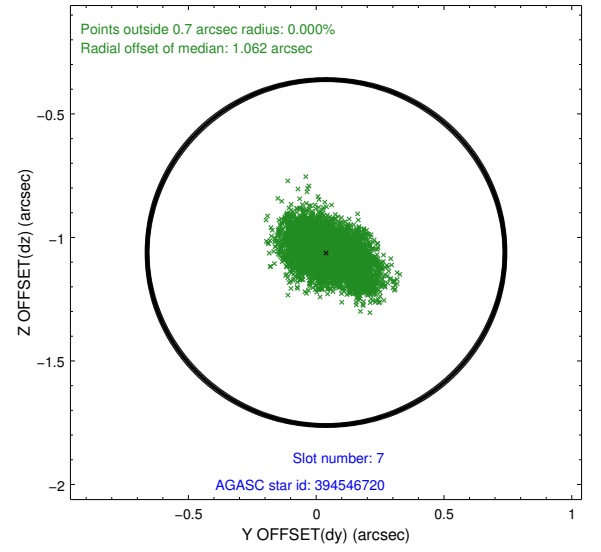
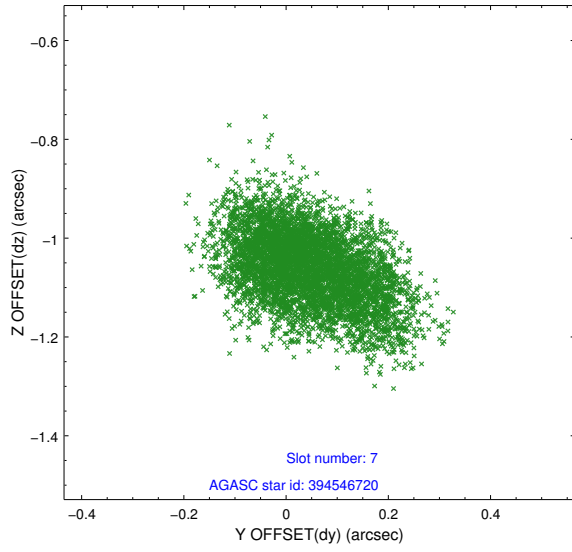


## 2.4.4 Slot 6



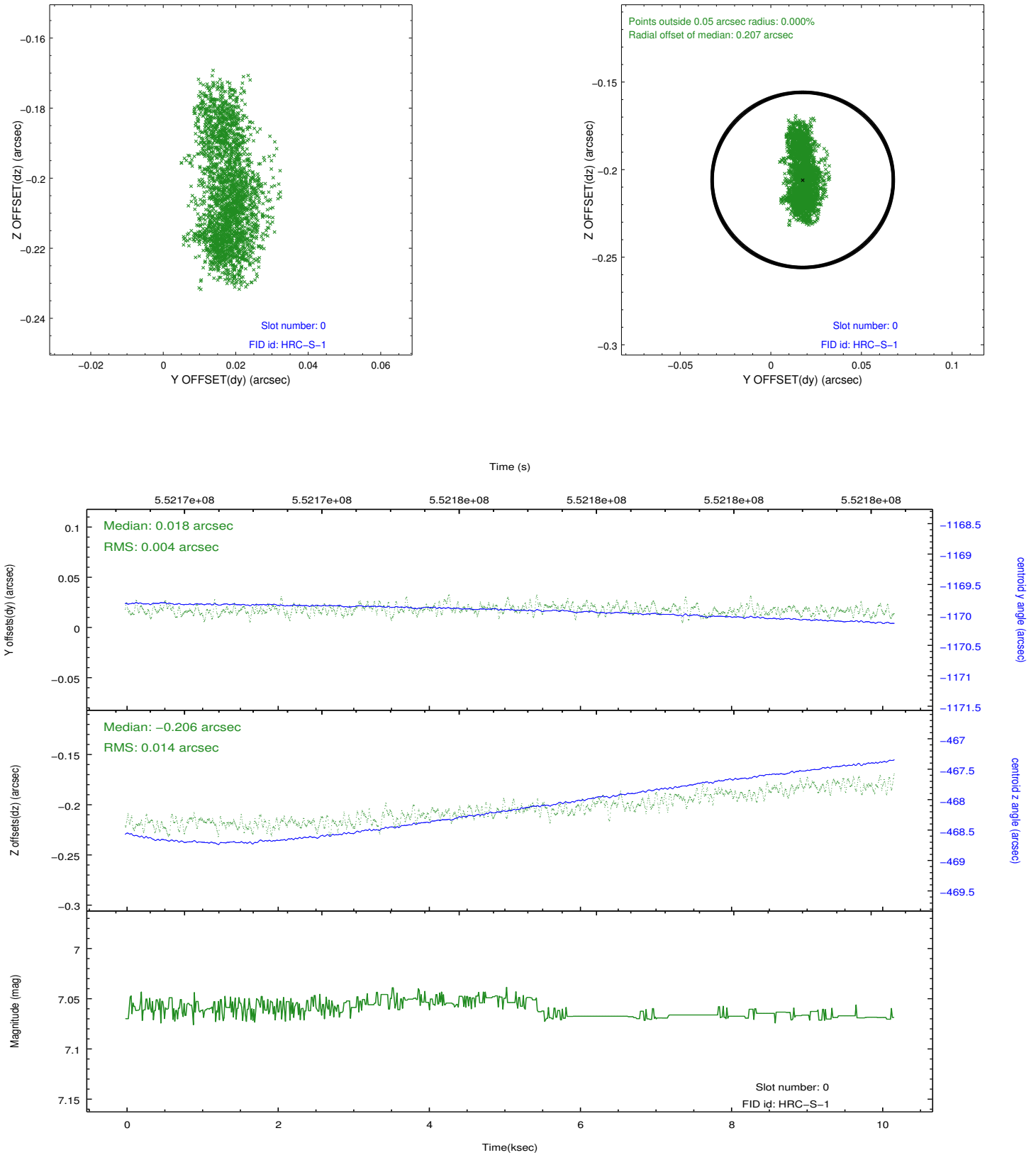


## 2.4.5 Slot 7

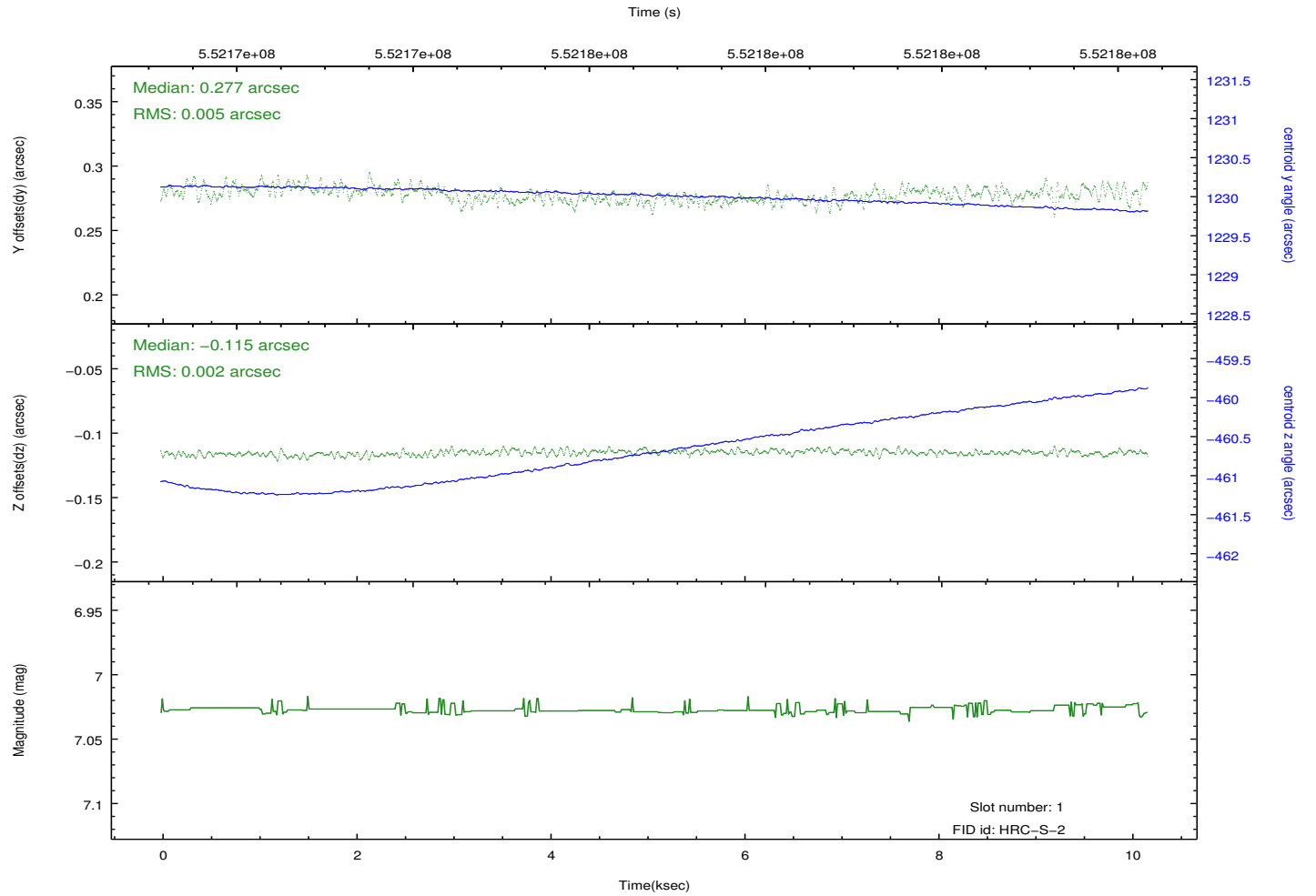
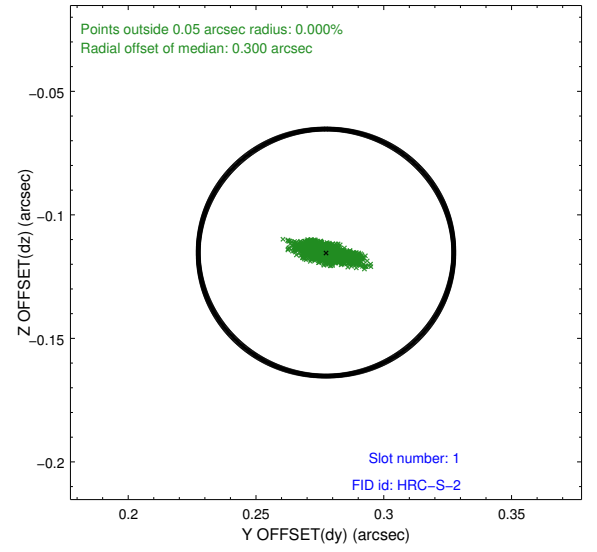
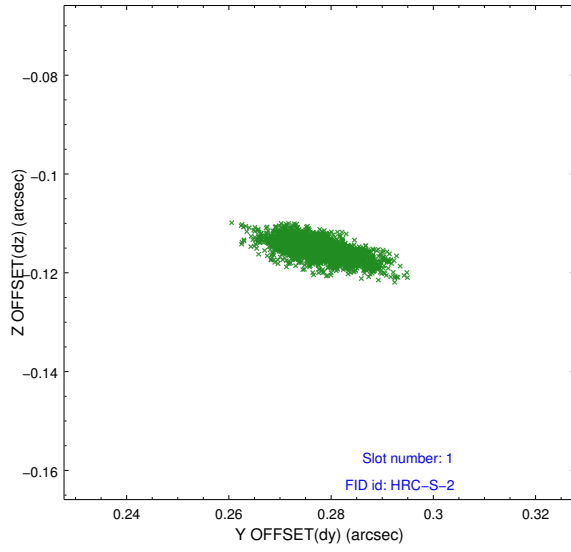


## 2.5 FID Slots

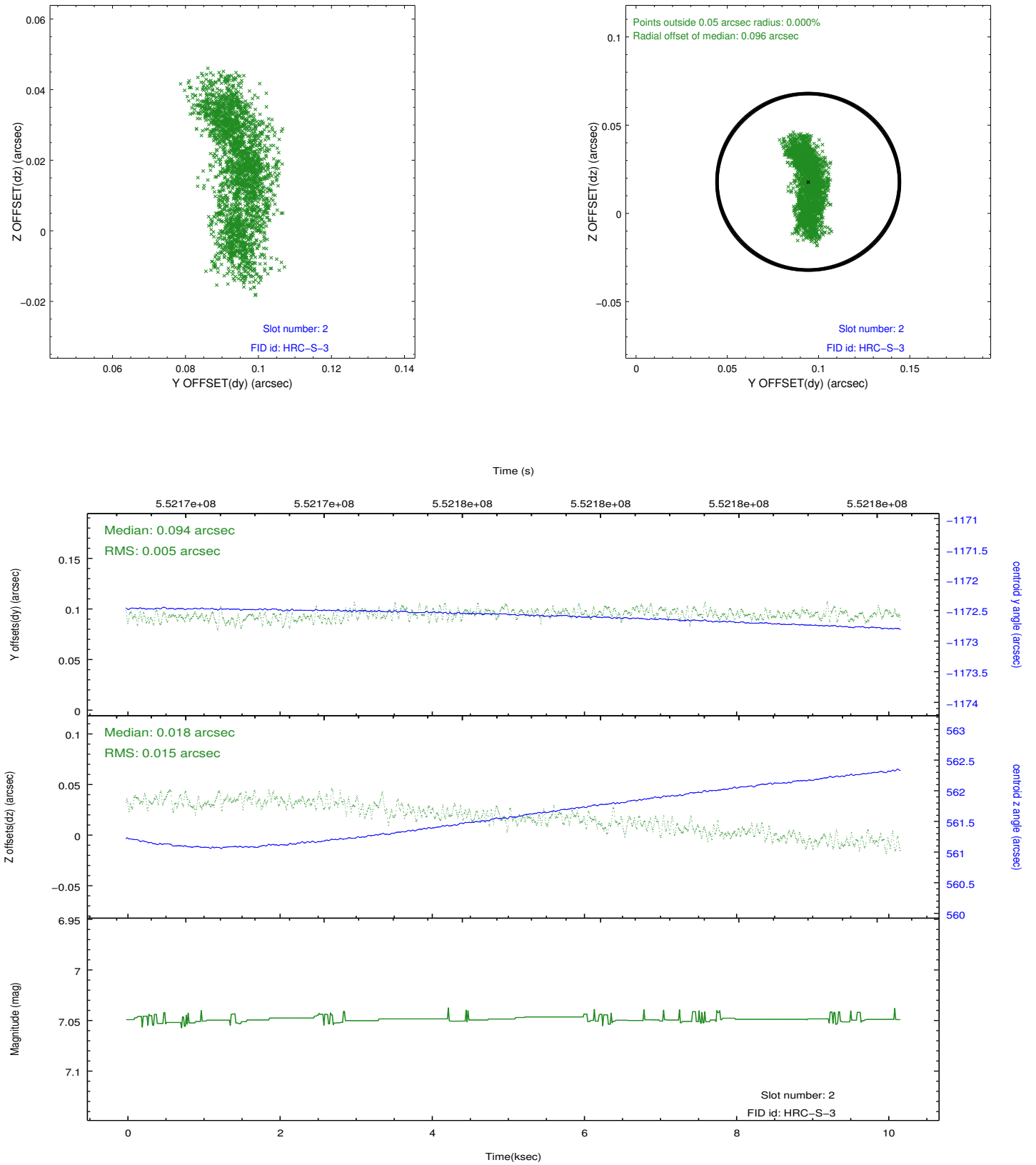
### 2.5.1 Slot 0



## 2.5.2 Slot 1

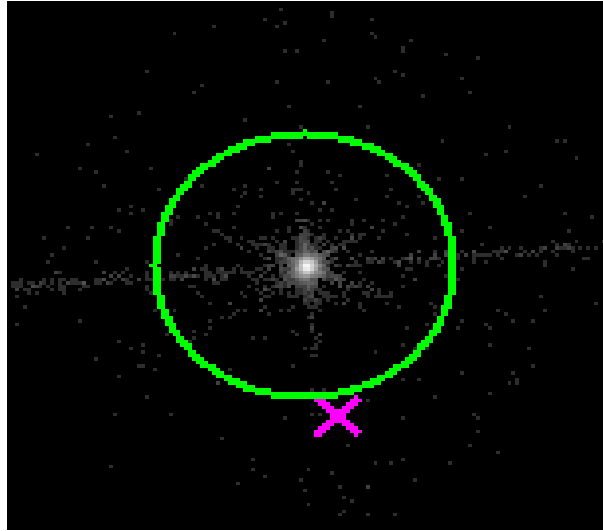


### 2.5.3 Slot 2

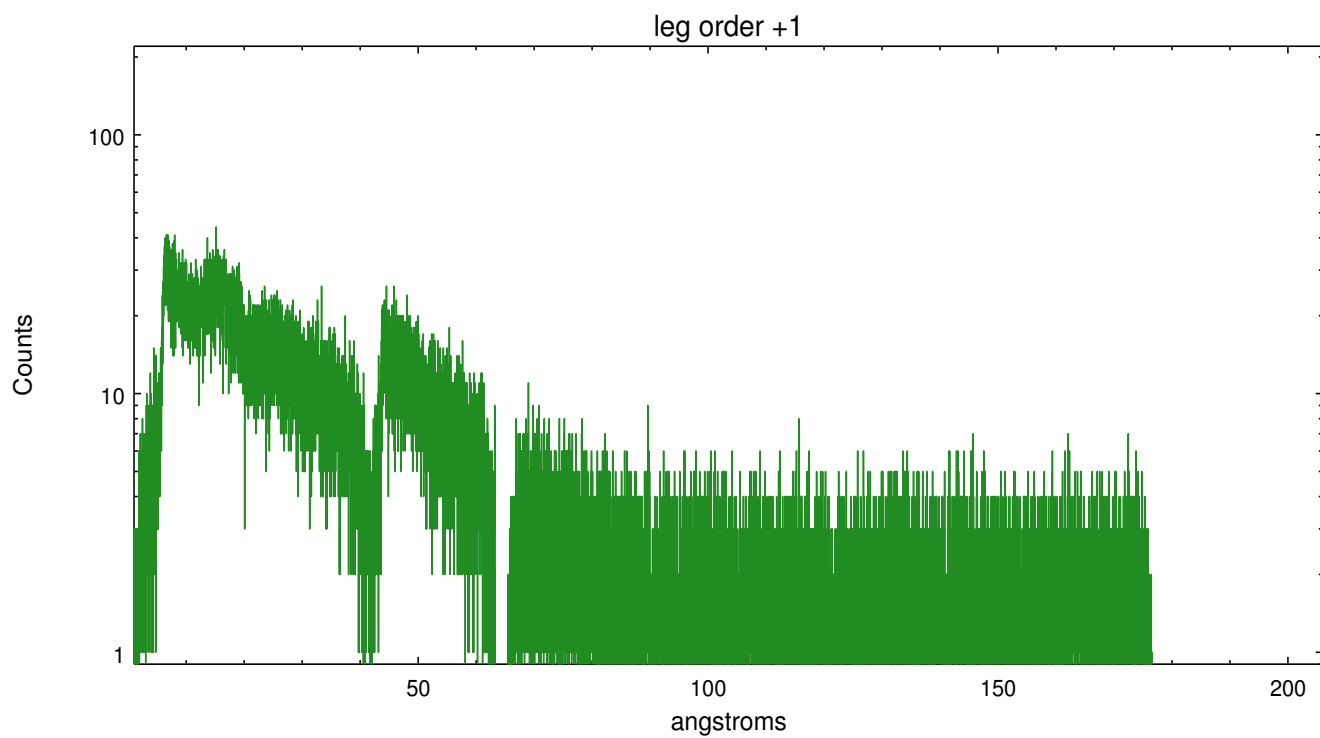
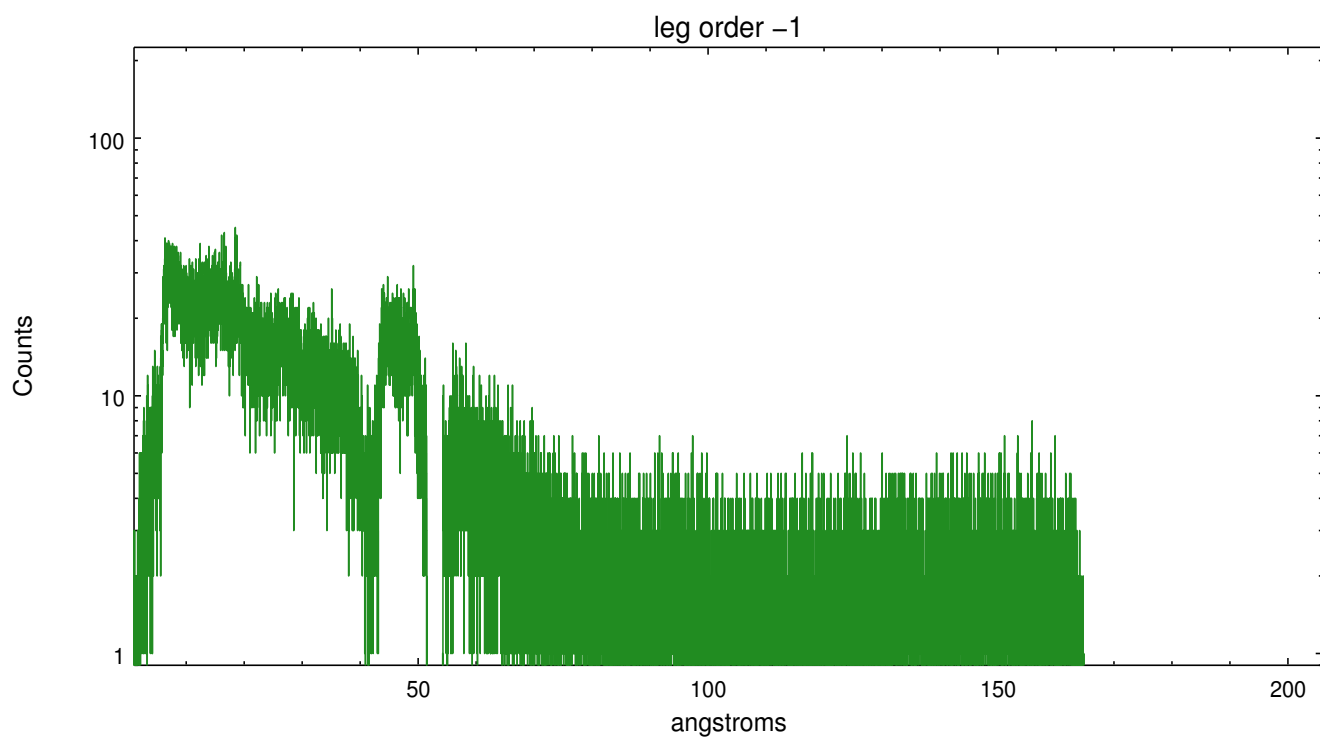


## 3 Gratings

### 3.1 LETG Arm



LETG Zero Order



## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.07.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	10.179275572777

### A.2 Comments