

# V&V Reference Report

## L2 ASCDS Version : 7.6.8.1

Observation 4149 - L2 Version 001  
Chandra X-Ray Center

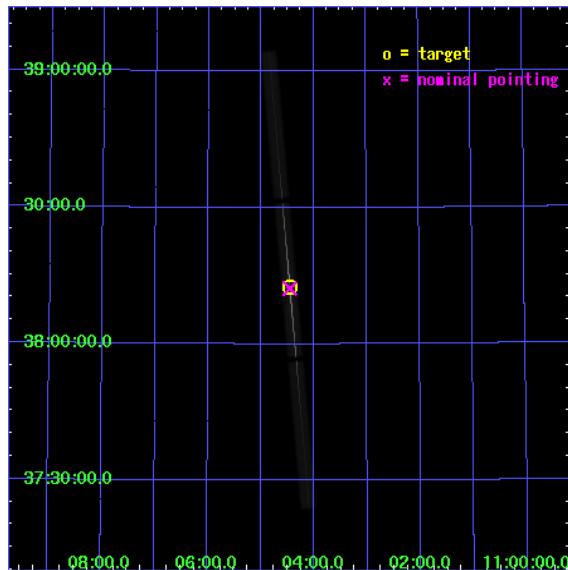
L2 Processing Date : Aug 10 2006

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# 1 Front

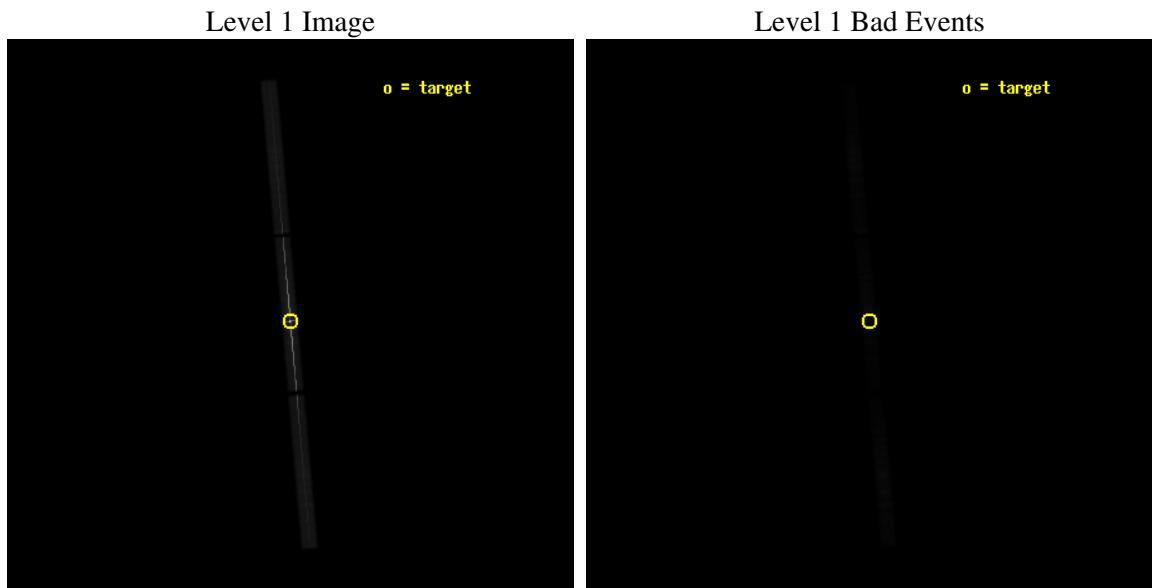
seq_num	700828
obs_id	4149
title	HIGH RESOLUTION SPECTROSCOPY OF A BLAZAR IN OUTBURST: JET ENVIRONMENT AND THE INTERGALACTIC MEDIUM
observer	Dr. Fabrizio Nicastro
object	Mkn 421
ra_targ	166.114
dec_targ	38.209
ra_nom	166.11331450653
dec_nom	38.204366081329
roll_nom	264.84773254058
revision	2
ontime	99982.604254574
livetime	99044.442258041
l2events	9261369



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



## 2.1.2 Parameters

obi_num	0
ascdsver	7.6.8.1
caldbver	3.2.2
date	2006-08-10T09:52:49
revision	2

sched_exp_time	100000.000000
ontime	100072.80425838
l1events	11274433

## 2.1.3 Events

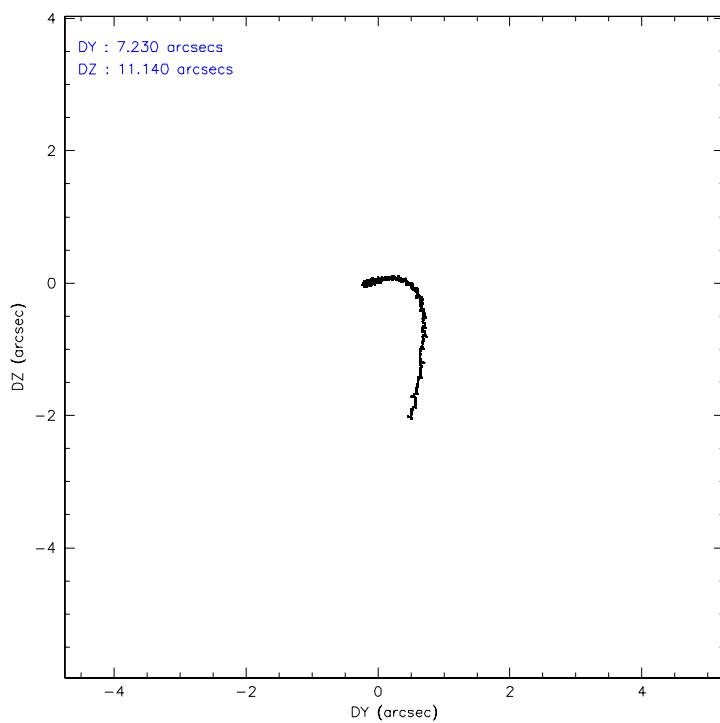
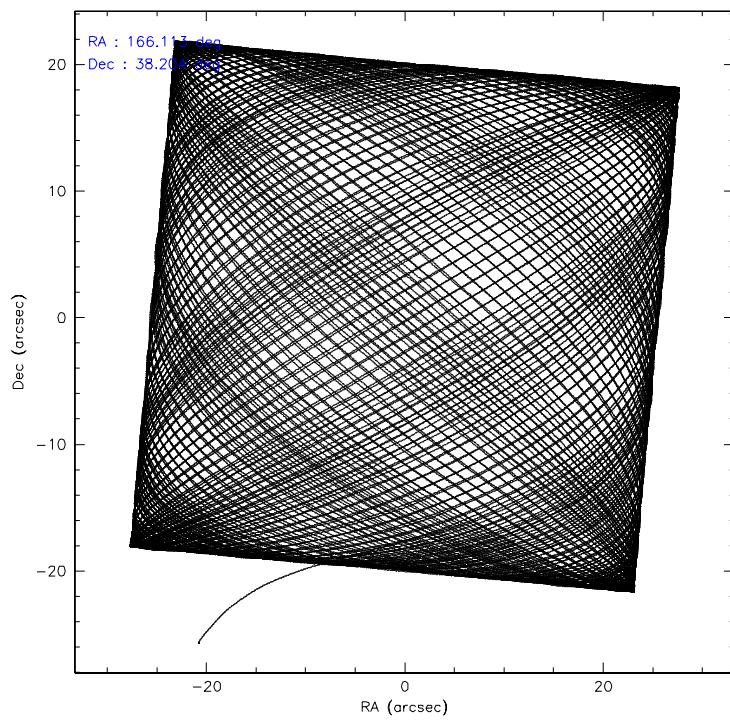
Level 1 Events

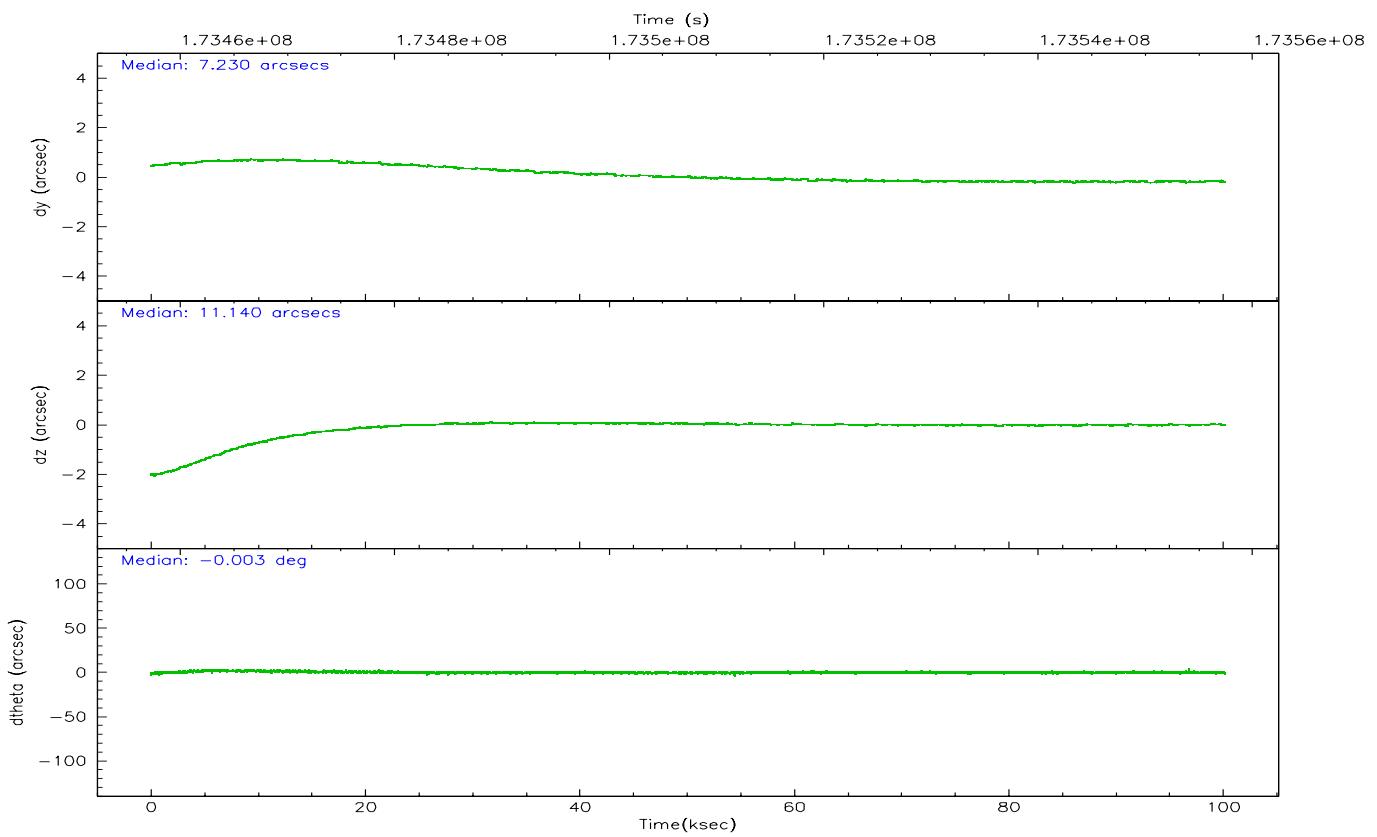
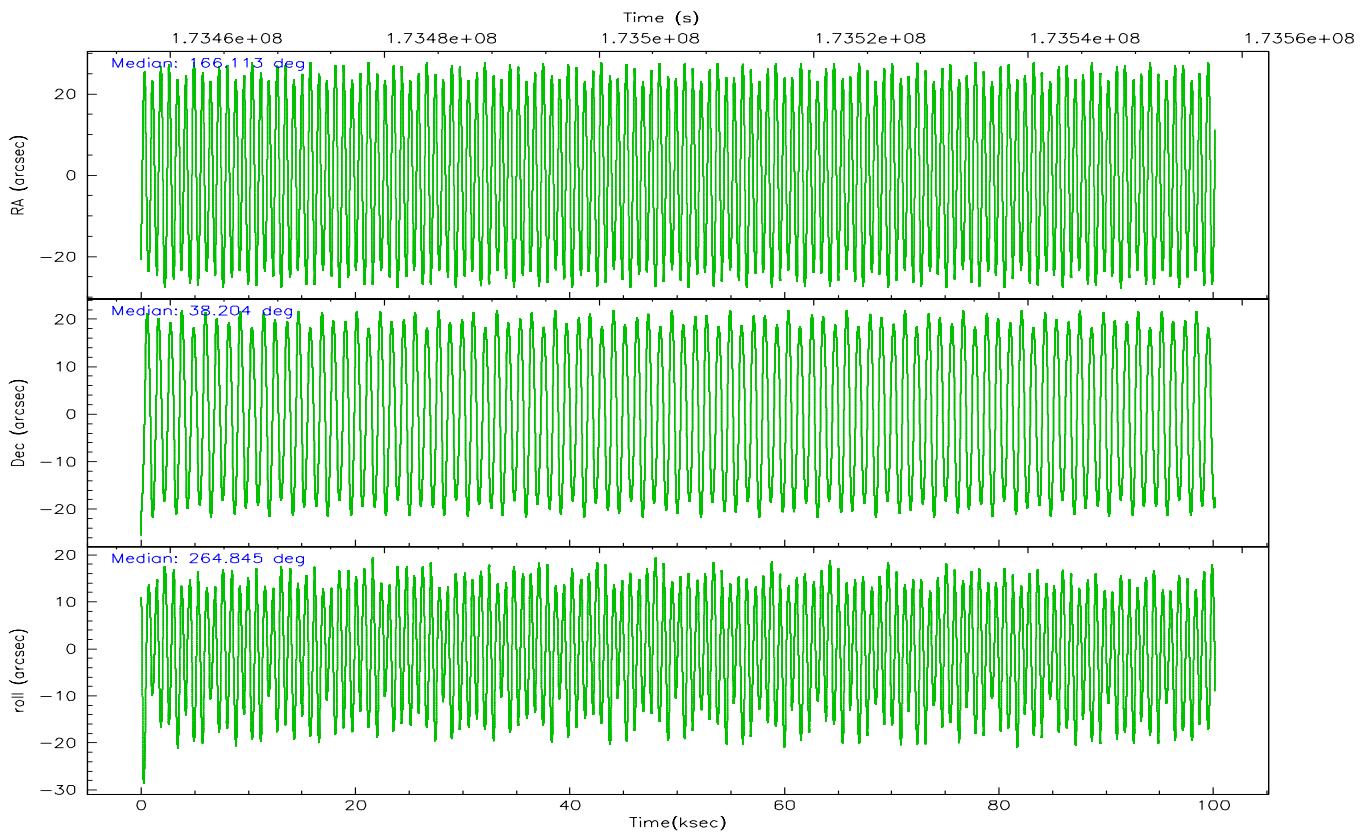
	segment 1	segment 2	segment 3
level 1 events	2194224	6813571	2266638
rejected events	427493	469144	521817
rejected %	19%	6%	23%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar format version number	6	6
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			
Pointing RA	166.096373	166.1133145065258			
Pointing Dec	38.229676	38.20436608132851			
Pointing Roll	264.790880	264.8477325405796			
SIM focus pos (mm)	-1.429586	-1.428180813131781			
SIM defocus (mm)	0.1037507710433287	0.1051558262725154			
SIM translation stage pos (mm)	250.455976	250.466033080201			
SIM translation stage offset (mm)	0	-0.01005468664627074			
Observation start time	173457455.184000	173456439.16657			
Observation start date	2003-07-01T14:36:31	2003-07-01T14:20:39			
Observation end time	173557455.184000	173558104.8209			
Observation end date	2003-07-02T18:23:11	2003-07-02T18:35:04			

## 2.3 Aspect





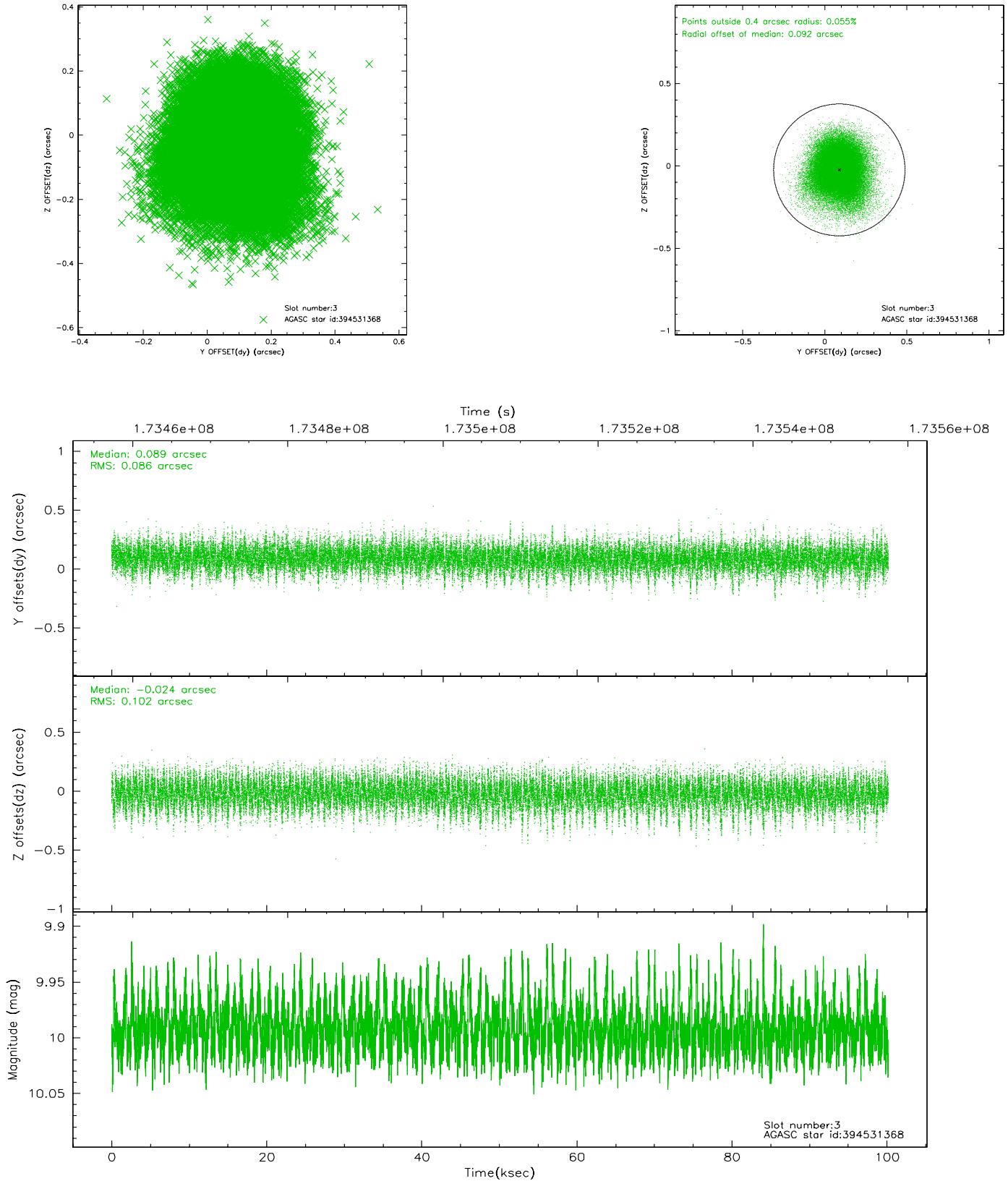
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-S-1	6.99	24434	0.121	-0.142	0.018	0.046	0.000000	0.000000	-1161.52	-459.67
1	FID	HRC-S-2	6.98	24435	0.160	-0.109	0.018	0.028	0.000000	0.000000	1238.14	-452.31
2	FID	HRC-S-3	7.00	24434	0.109	-0.051	0.010	0.038	0.000000	0.000000	-1164.20	569.94
3	GUIDE	394531368	9.99	48835	0.089	-0.024	0.140	0.238	165.794613	38.837127	-2102.02	-1041.32
4	GUIDE	394533848	8.73	48858	0.080	0.242	0.070	0.113	166.382906	38.276007	-240.77	790.40
5	GUIDE	394546712	6.60	48870	-0.151	0.137	0.053	0.088	166.451462	38.394357	-683.19	943.82
6	GUIDE	394546720	6.40	48871	0.095	-0.379	0.082	0.129	166.130115	38.241361	-50.28	91.03
7	GUIDE	394530152	7.49	48866	-0.118	0.024	0.064	0.104	166.075805	38.868252	-2284.05	-266.01

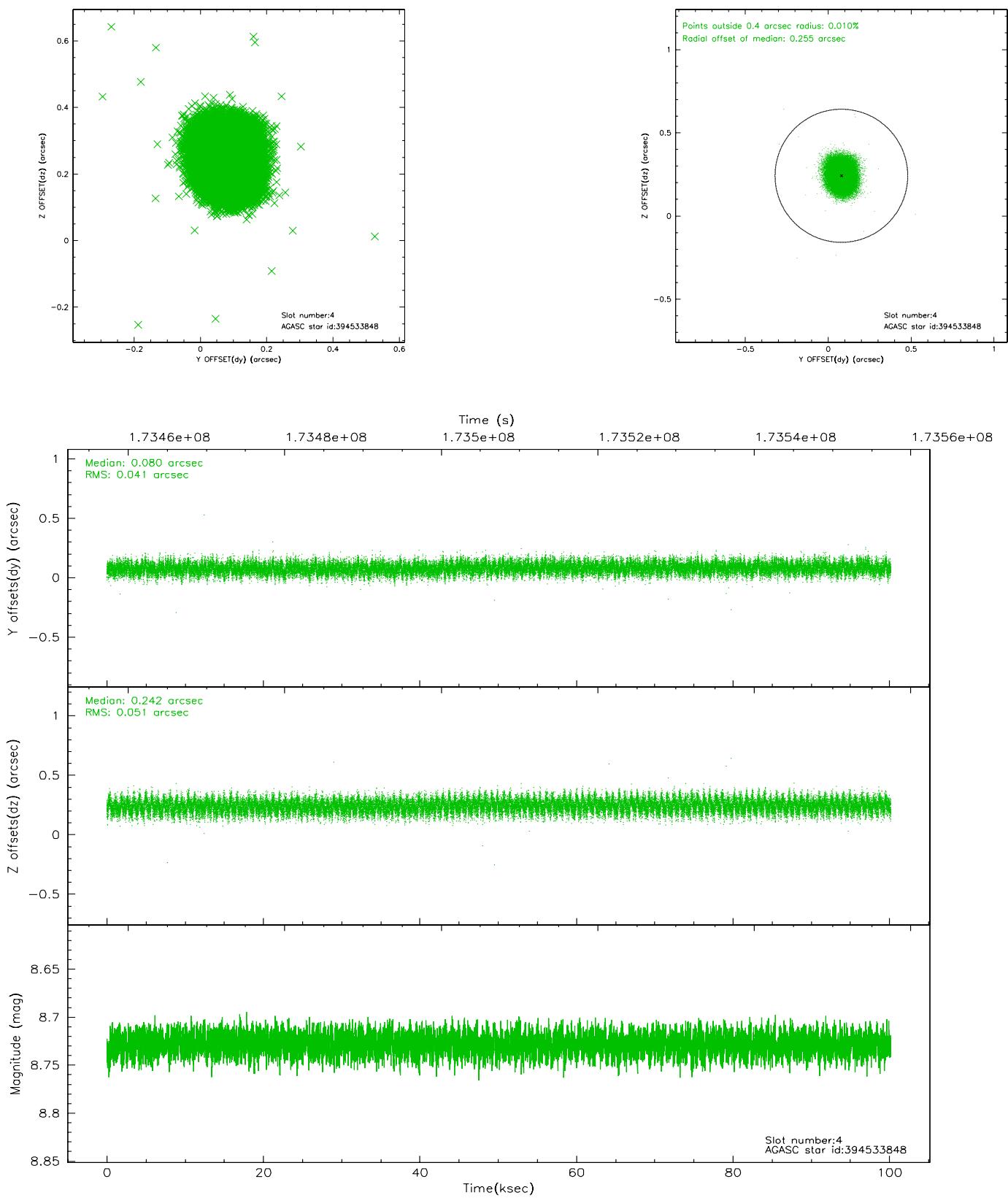
∞

## 2.4 Star Slots

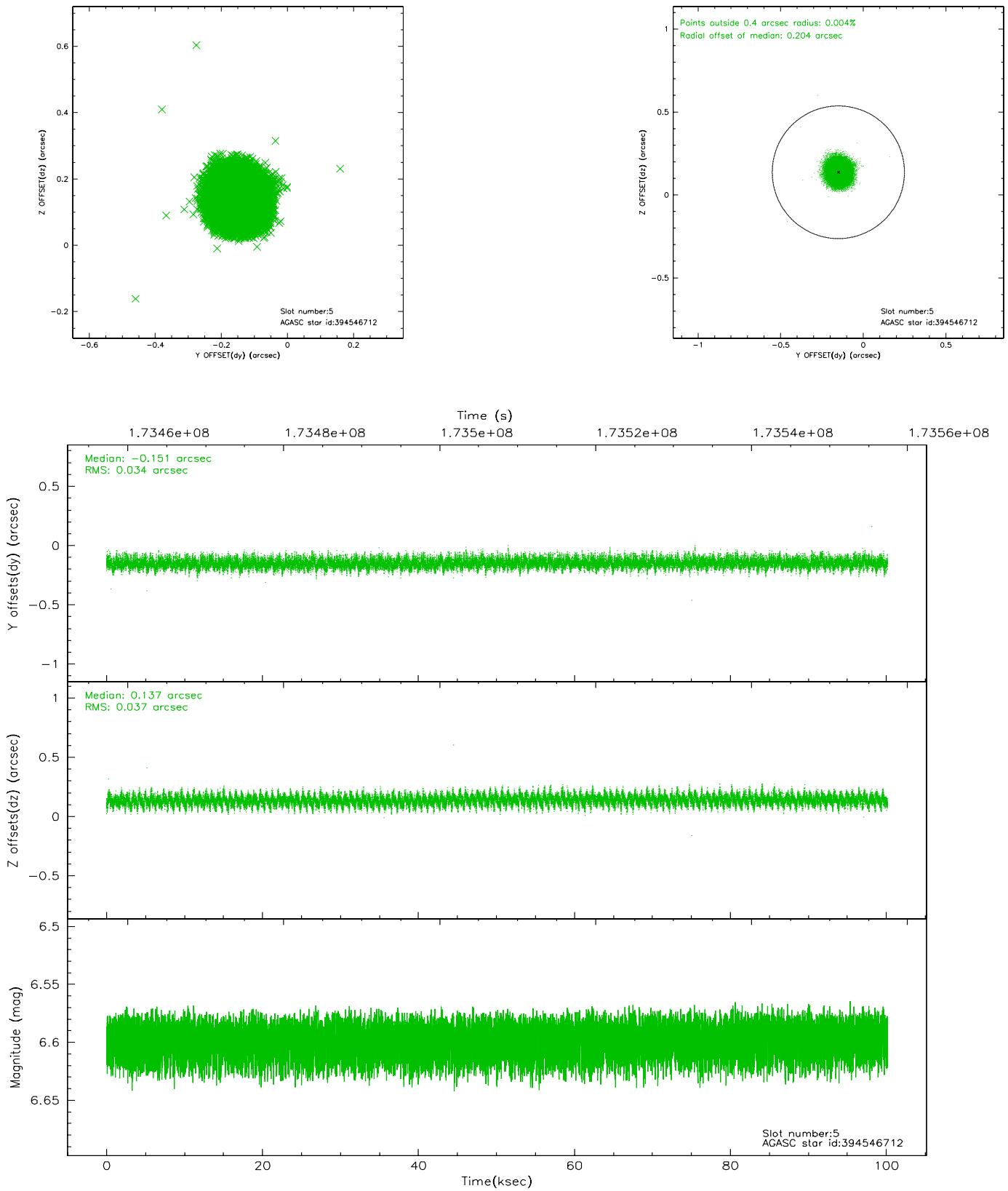
### 2.4.1 Slot 3



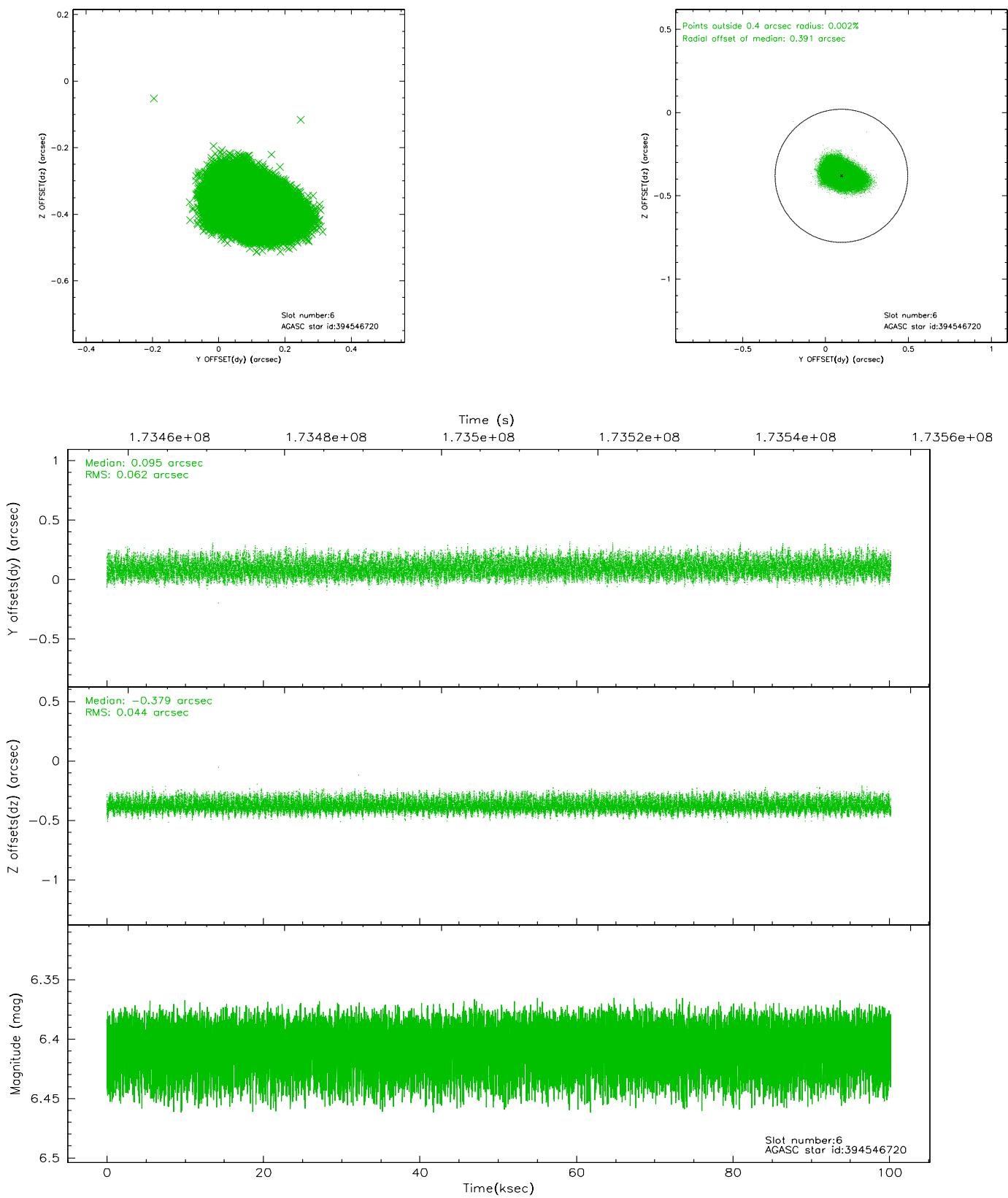
## 2.4.2 Slot 4



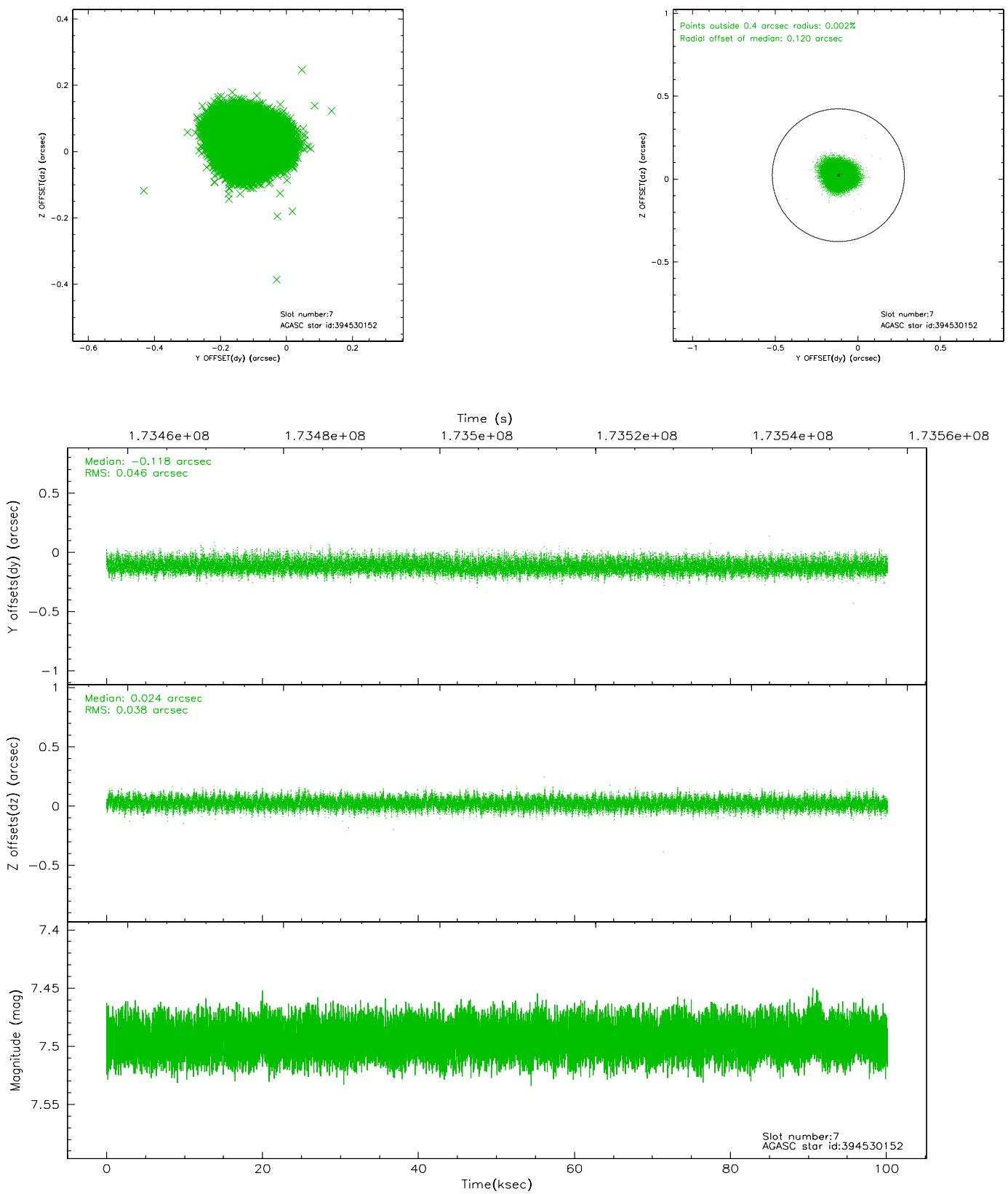
### 2.4.3 Slot 5



## 2.4.4 Slot 6

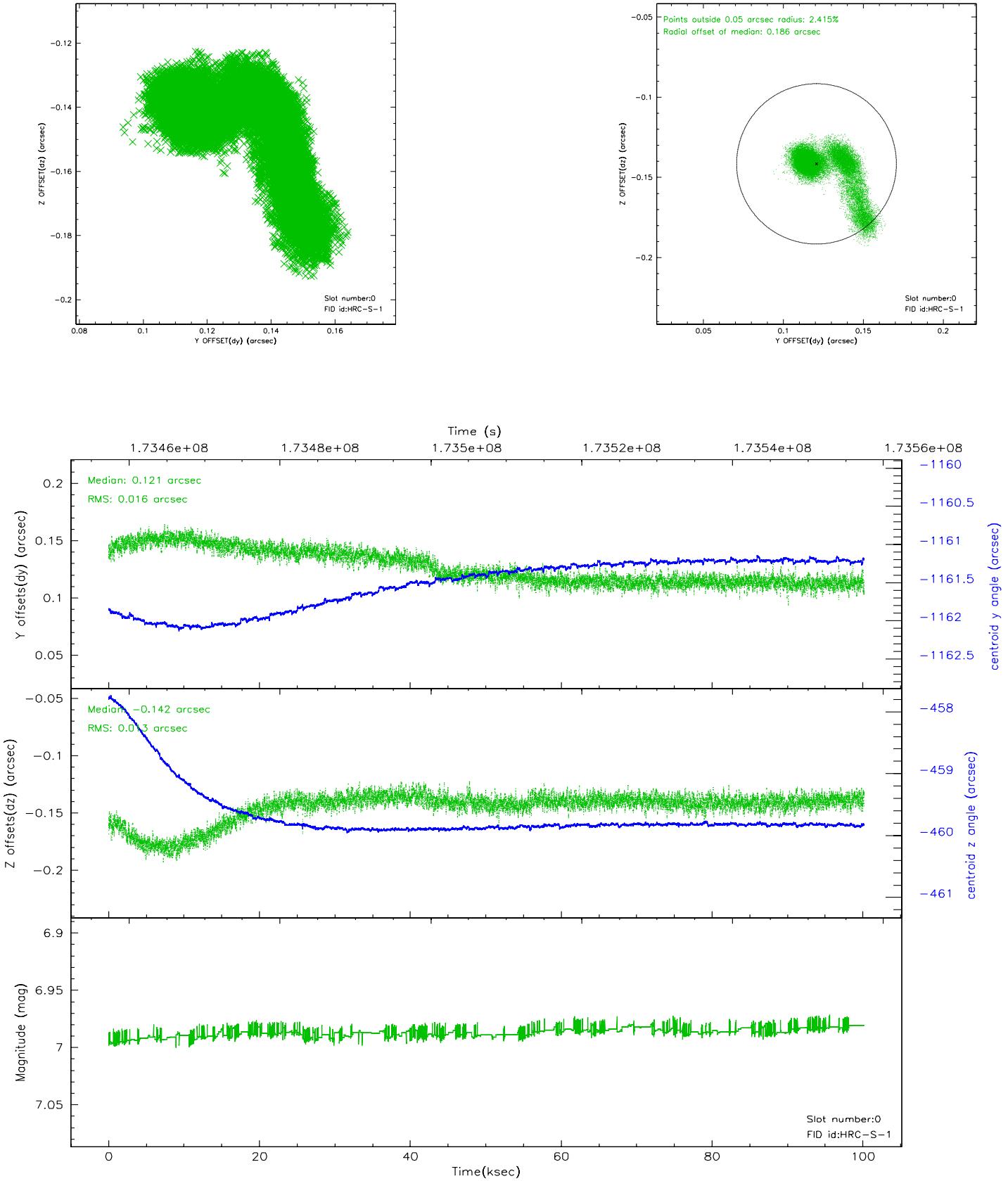


## 2.4.5 Slot 7

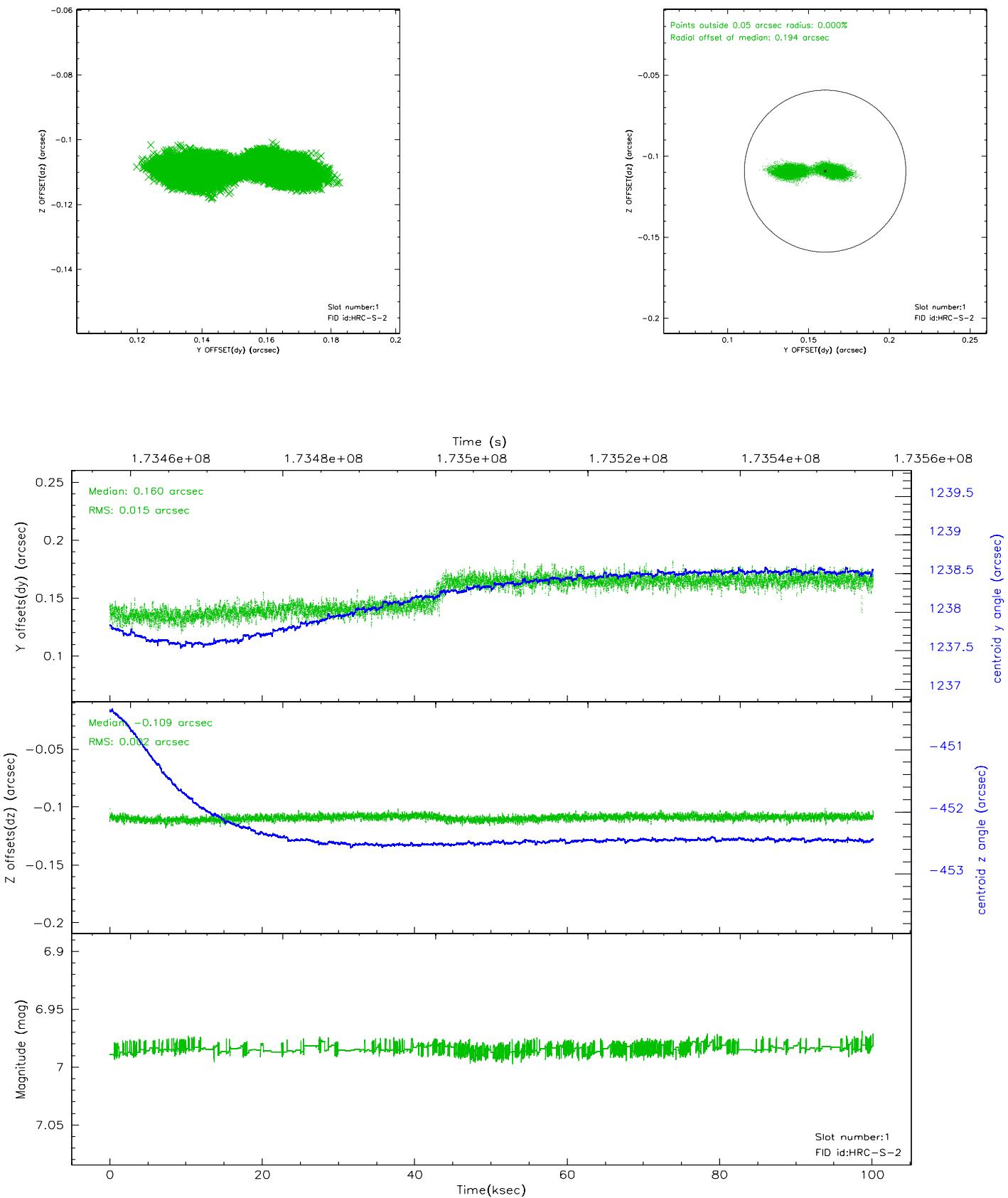


## 2.5 FID Slots

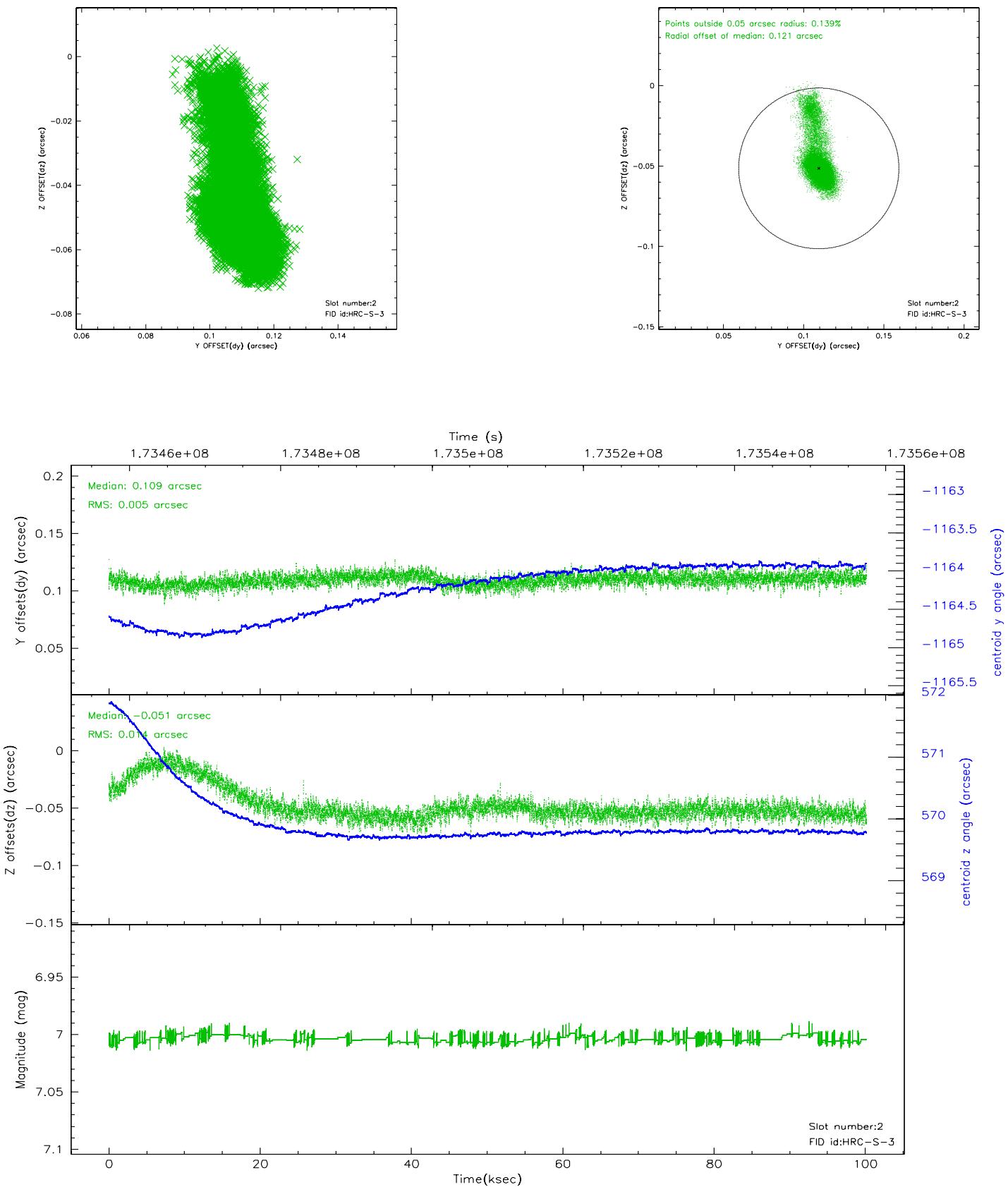
### 2.5.1 Slot 0



## 2.5.2 Slot 1

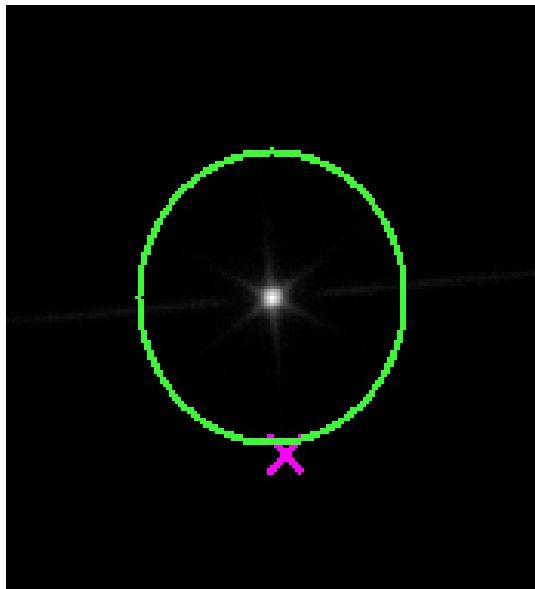


### 2.5.3 Slot 2



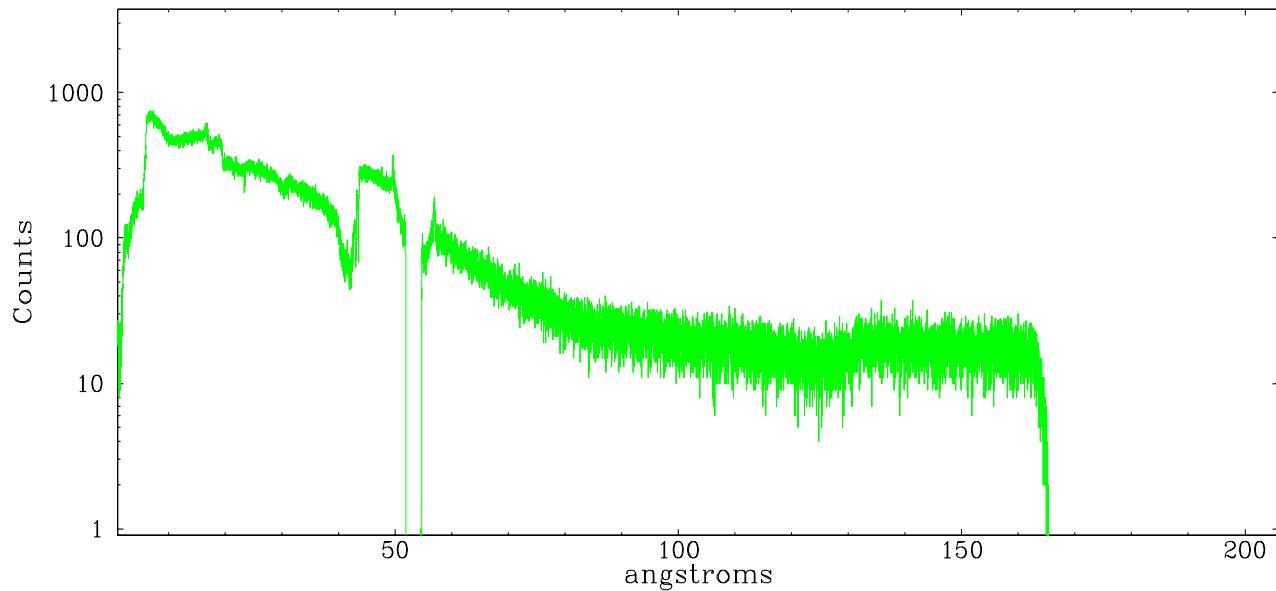
### 3 Gratings

#### 3.1 LETG Arm

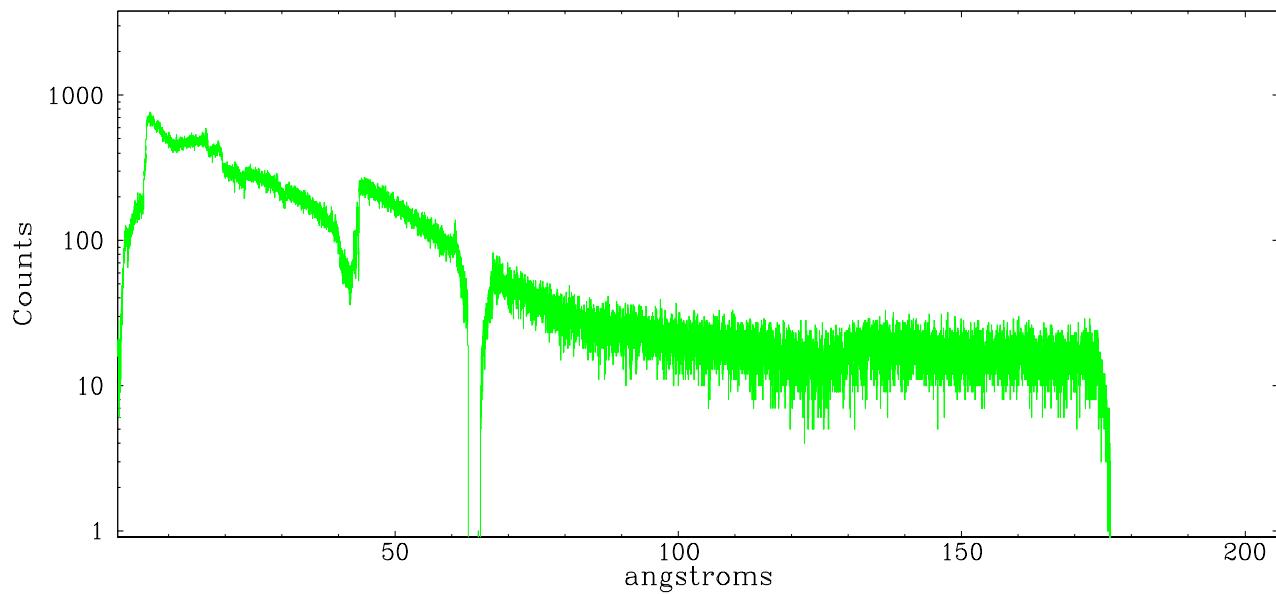


LETG Zero Order

leg order -1



leg order +1



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.08.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	99.982

## A.2 Comments