

# V&V Reference Report

## L2 ASCDS Version : 10.8

Observation 22151 - L2 Version 1  
Chandra X-Ray Center

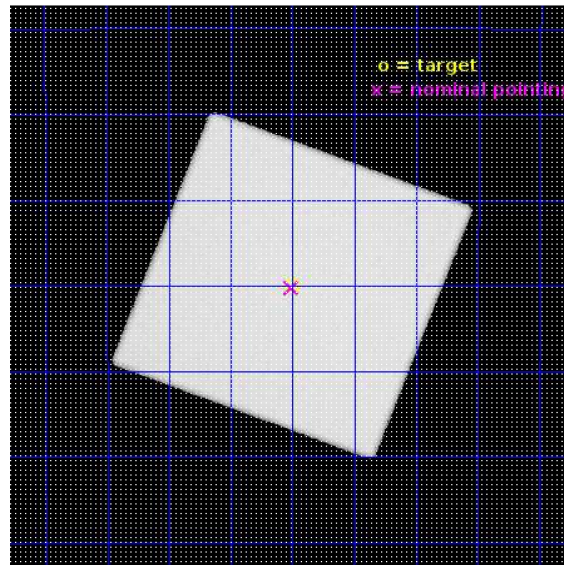
L2 Processing Date : Sep 9 2019

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# 1 Front

seq_num	100181	Sequence number
obs_id	22151	Observation id
title	Is X-ray Aurora Produced by Magnetic Unloading?	Proposal title
observer	William Dunn	Principal investigator
object	Jupiter	Source name
ra_targ	254.250823	Observer's specified target RA [deg]
dec_targ	-22.334413	Observer's specified target Dec [deg]
ra_nom	254.2521314174	Nominal RA [deg]
dec_nom	-22.33754303924	Nominal Dec [deg]
roll_nom	245.90498974295	Nominal Roll [deg]
revision	1	Processing version of data
ontime	25128.132762909	[s]
liveltime	24330.858474867	Ontime multiplied by DTCOR
l2events	3207964	Number of level 2 events

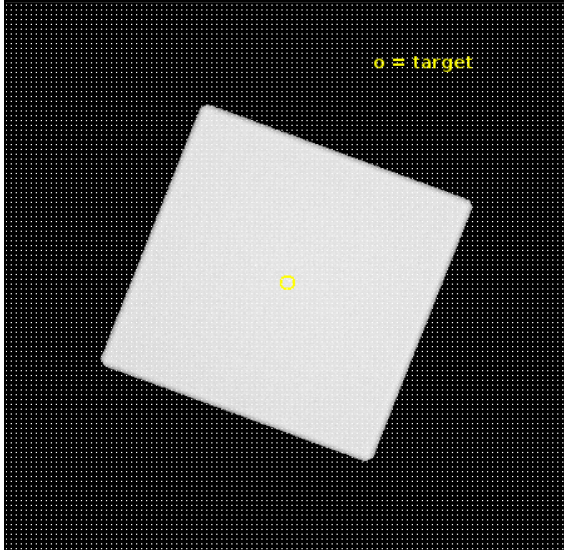


## 2 OBI

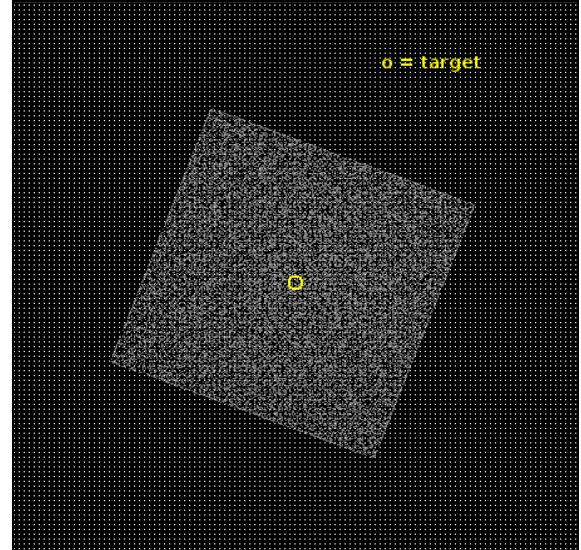
### 2.1 OBI

#### 2.1.1 Images

Level 1 Image



Level 1 Bad Events



### 2.1.2 Parameters

obi_num	1	Obi number	sched_exp_time	25000.000000	[s] Scheduled observation exposure time
ascdsver	10.8	Processing system revision	ontime	25128.132762909	[s]
caldsver	4.8.4.1	&#160	l1events	4467290	Number of level 1 events
date	2019-09-09T13:05:06	Date and time of file creation			
revision	1	Processing version of data			

### 2.1.3 Events

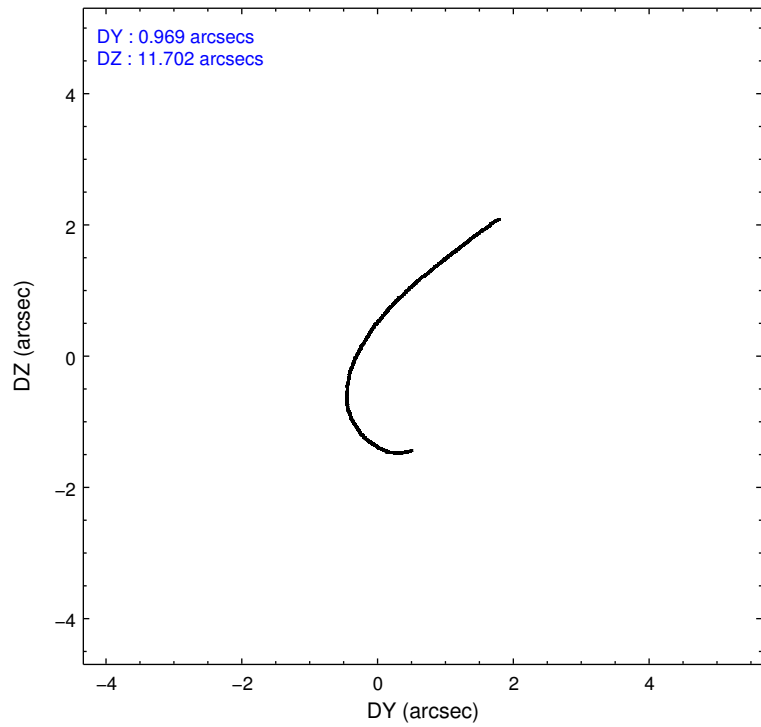
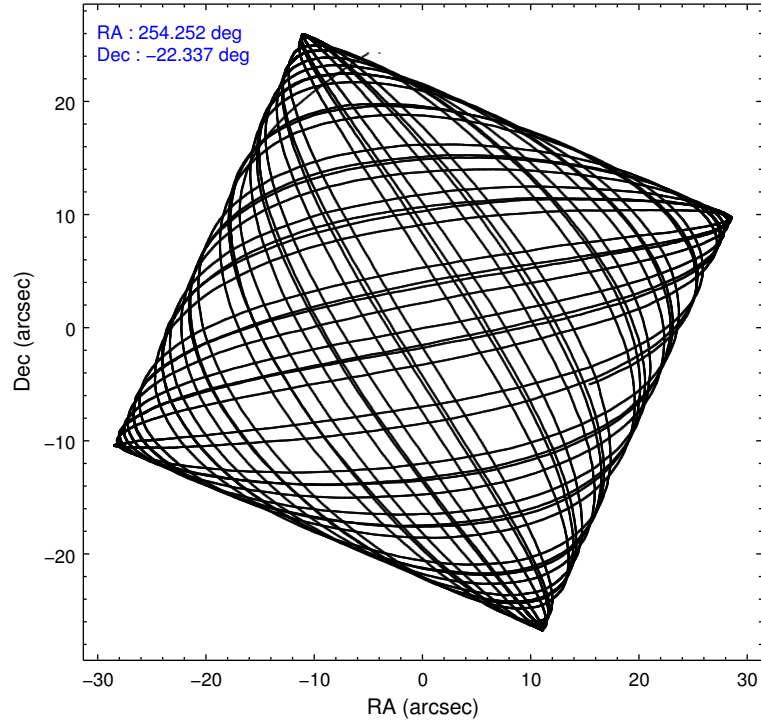
#### Level 1 Events

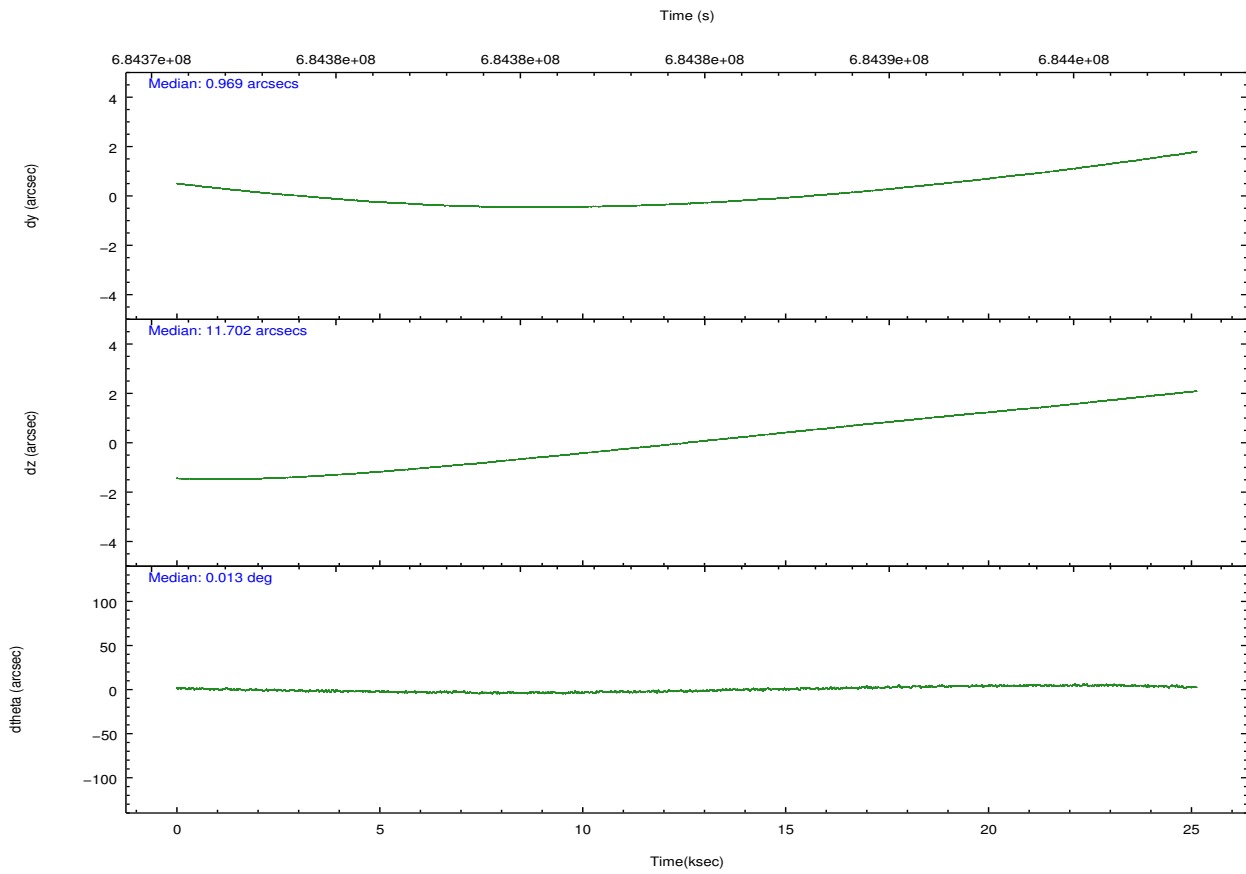
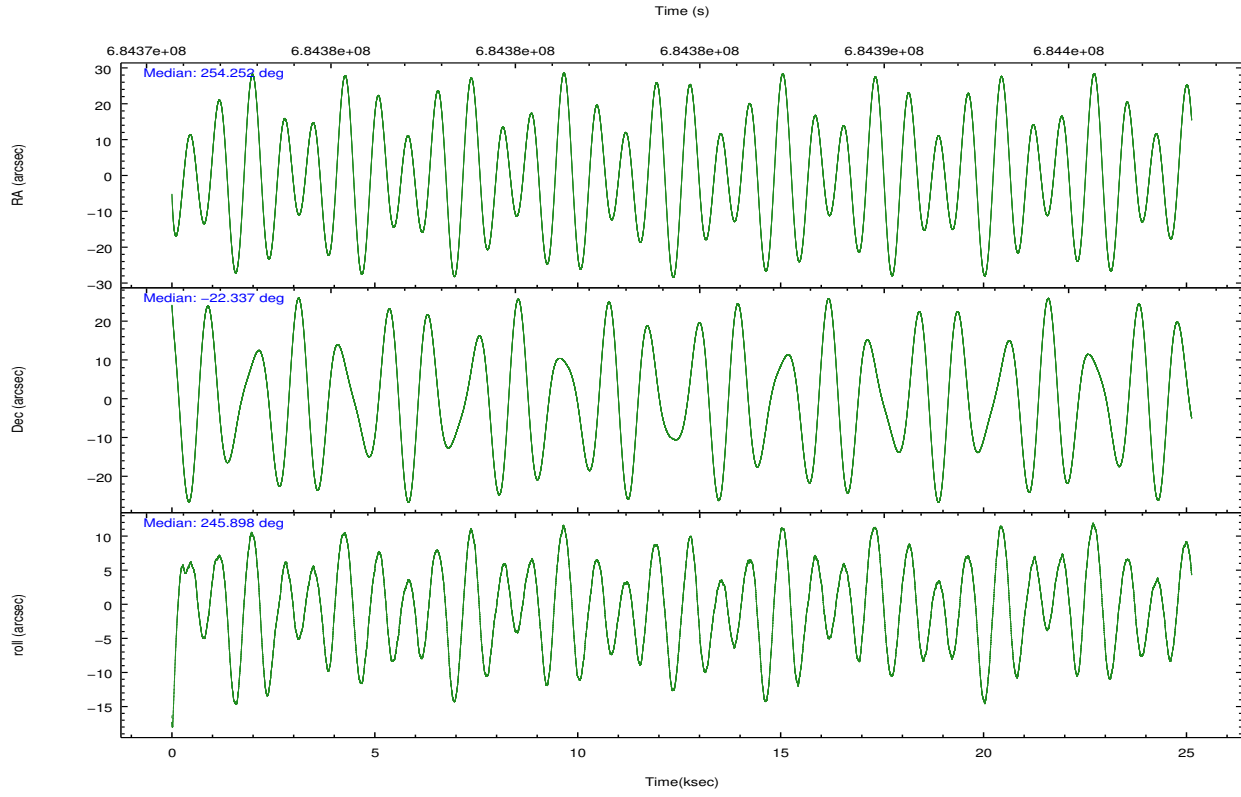
	<b>segment 0</b>
level 1 events	4467290
rejected events	270767
rejected %	6%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	HRC	HRC	Obspar format version number	7	7
Detector	HRC-I	HRC-I	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	254.248420	254.2521314173961			
[deg] Pointing Dec	-22.310452	-22.33754303923994			
[deg] Pointing Roll	245.999090	245.9049897429515			
[s] Window start time (MET)	684371469.184000	684371469.184000			
[s] Window stop time (MET)	684397269.184000	684397269.184000			
[mm] SIM focus pos	-1.040293	-1.038866356238299			
[mm] SIM defocus	0	0.001426264420575141			
[mm] SIM translation stage pos	126.985494	126.9829799899862			
[mm] SIM translation stage offset	0	0.002508901615314585			
[s] Observation start time (MET)	684372067.184000	684370765.16136			
Observation start date	2019-09-08T23:19:58	2019-09-08T22:59:25			
[s] Observation end time (MET)	684397067.184000	684397516.12547			
Observation end date	2019-09-09T06:16:38	2019-09-09T06:25:16			

## 2.3 Aspect





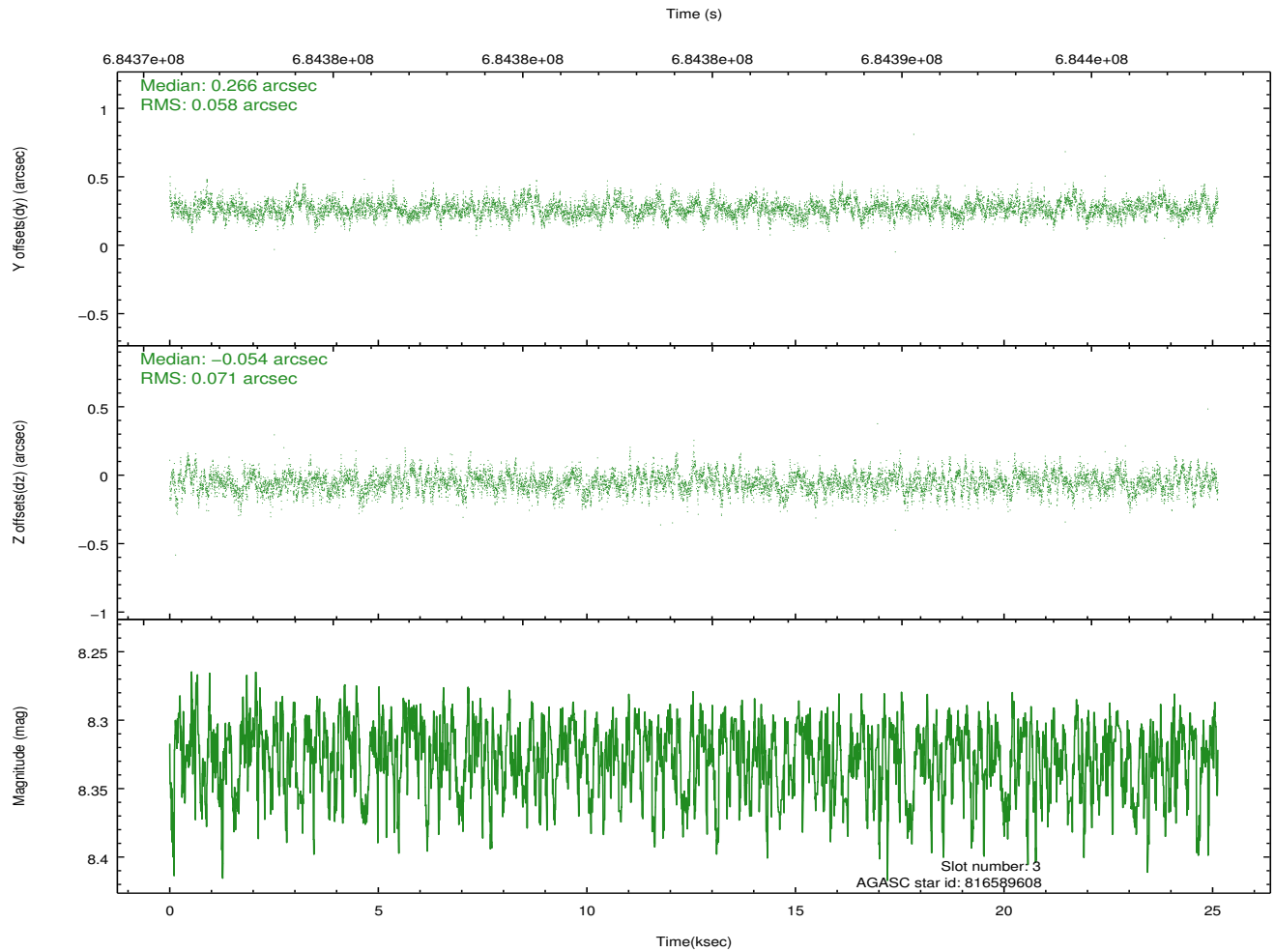
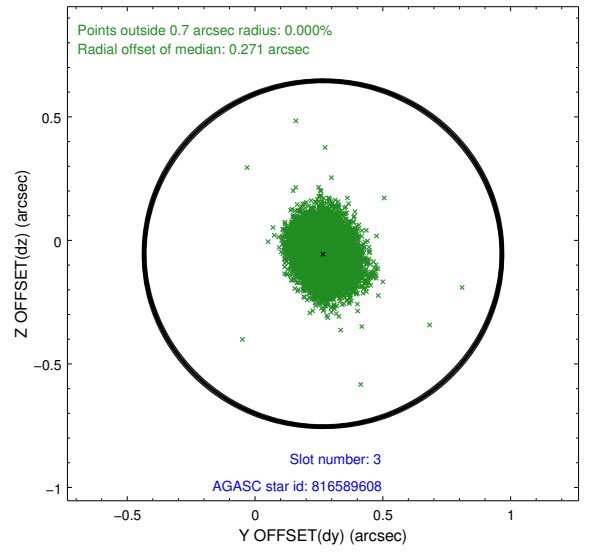
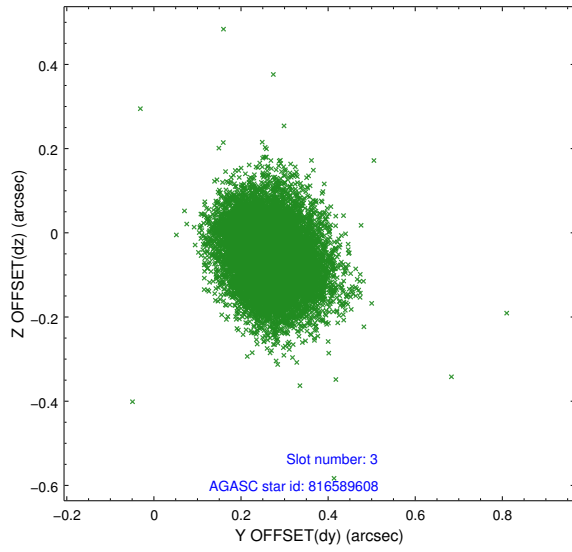
### Slot Statistics

slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_x
0	FID		HRC-I-1	7.02	6129	1.000	-0.242	-0.148	0.029	0.046	0.000000	0.000000	-756.93	-1299
1	FID		HRC-I-2	7.05	6127	1.000	0.199	-0.127	0.029	0.061	0.000000	0.000000	856.02	-1301
2	FID		HRC-I-4	7.04	6129	1.000	0.158	0.181	0.019	0.031	0.000000	0.000000	1286.60	1002
3	GUIDE	used	816589608	8.33	12252	1.000	0.266	-0.054	0.096	0.159	253.659974	-21.879606	-612.84	-2424
4	GUIDE	used	816723288	7.80	12254	1.000	-0.104	0.279	0.092	0.142	254.188785	-21.796597	-1608.54	-934
5	GUIDE	used	816728408	8.93	12246	1.000	-0.207	0.002	0.123	0.216	255.089485	-22.132027	-1720.62	2304
6	GUIDE	used	892600464	8.88	12236	1.000	0.178	-0.356	0.113	0.186	254.248920	-22.576721	875.33	391
7	GUIDE	used	816725024	8.40	12244	1.000	-0.136	0.127	0.087	0.150	254.689455	-21.769583	-2376.08	556

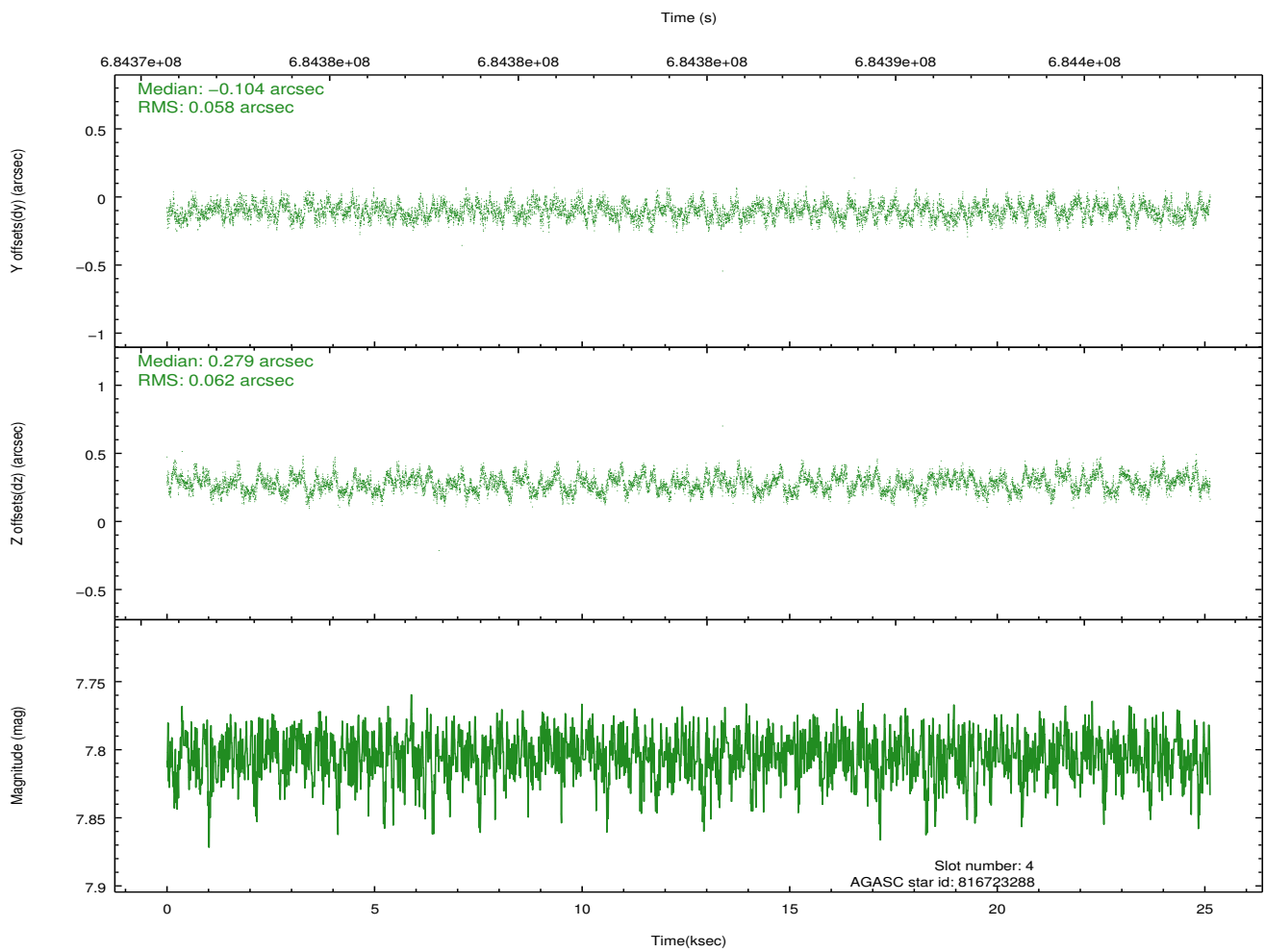
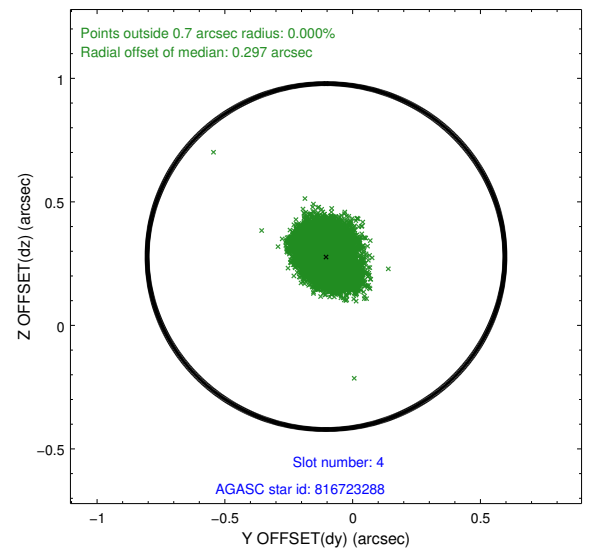
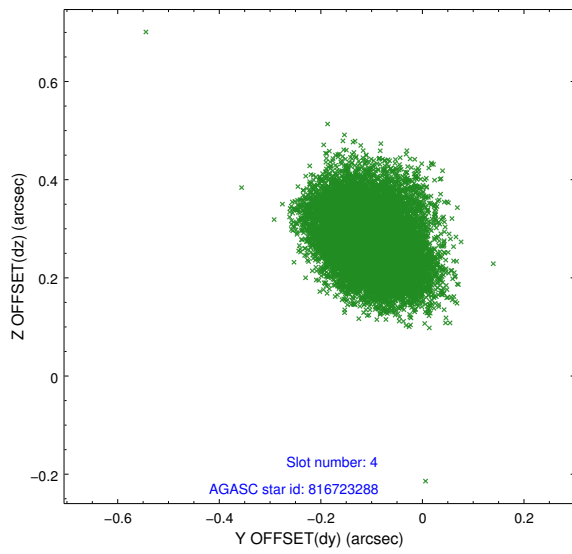
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## 2.4 Star Slots

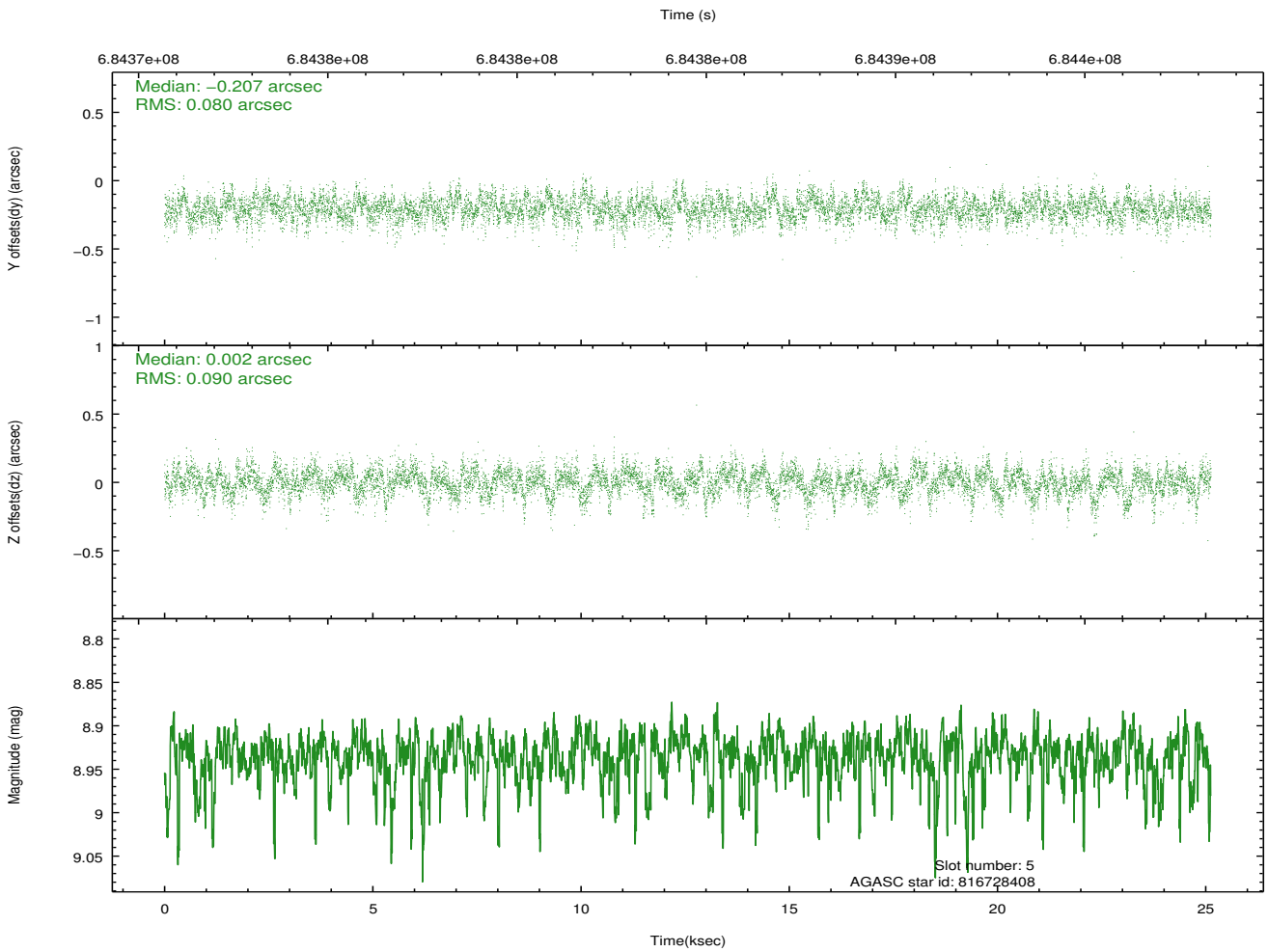
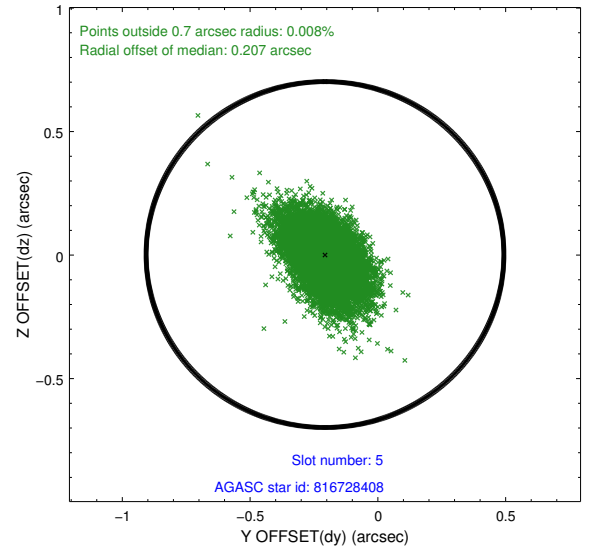
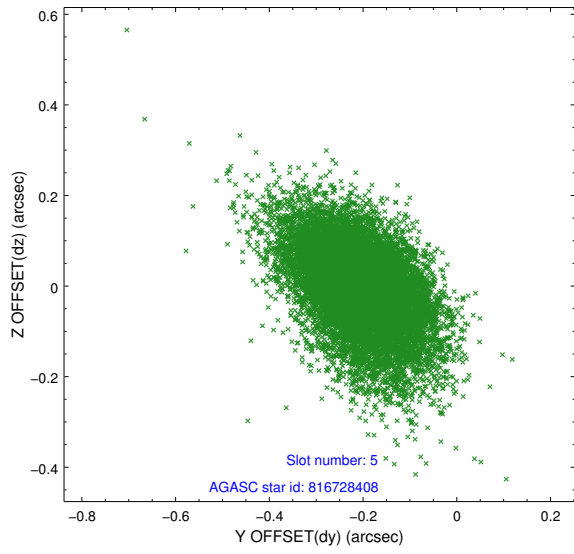
### 2.4.1 Slot 3



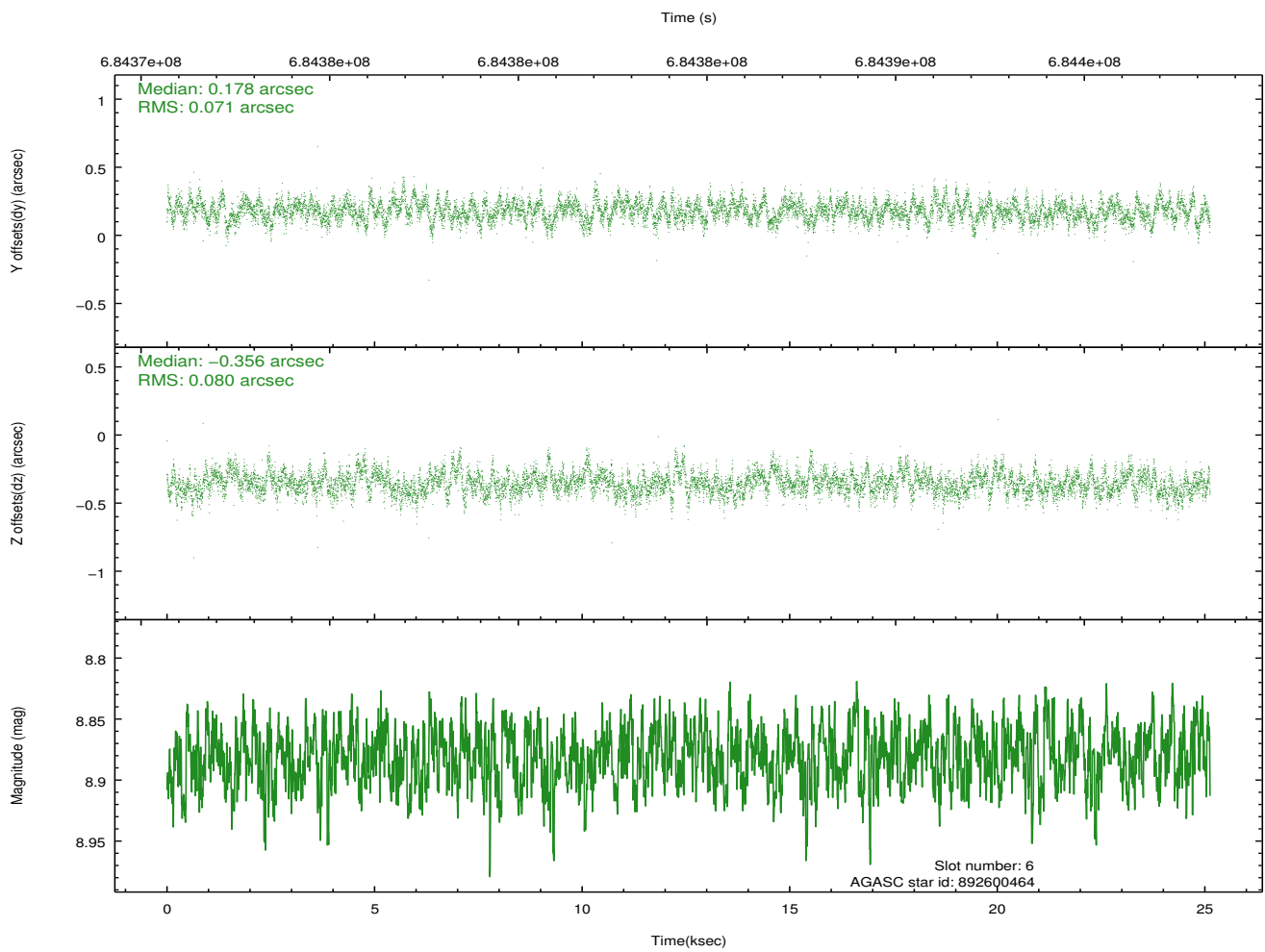
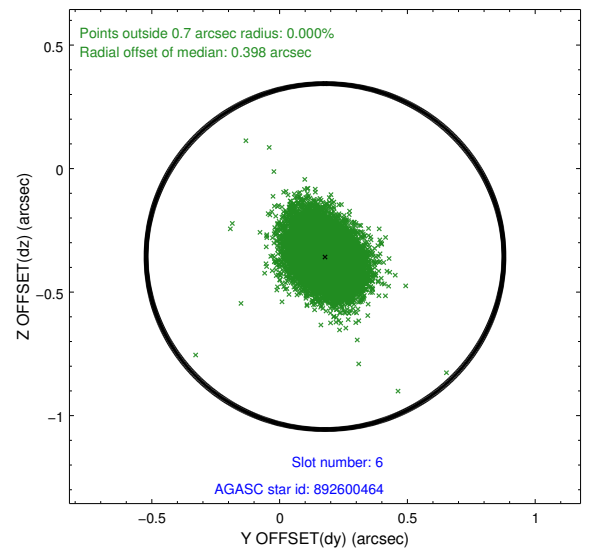
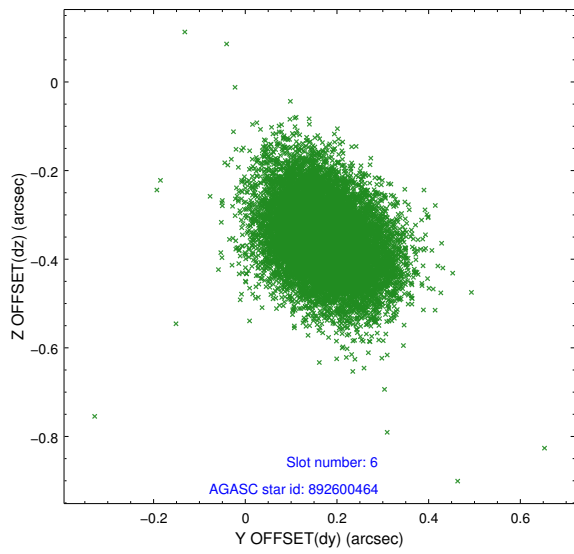
## 2.4.2 Slot 4



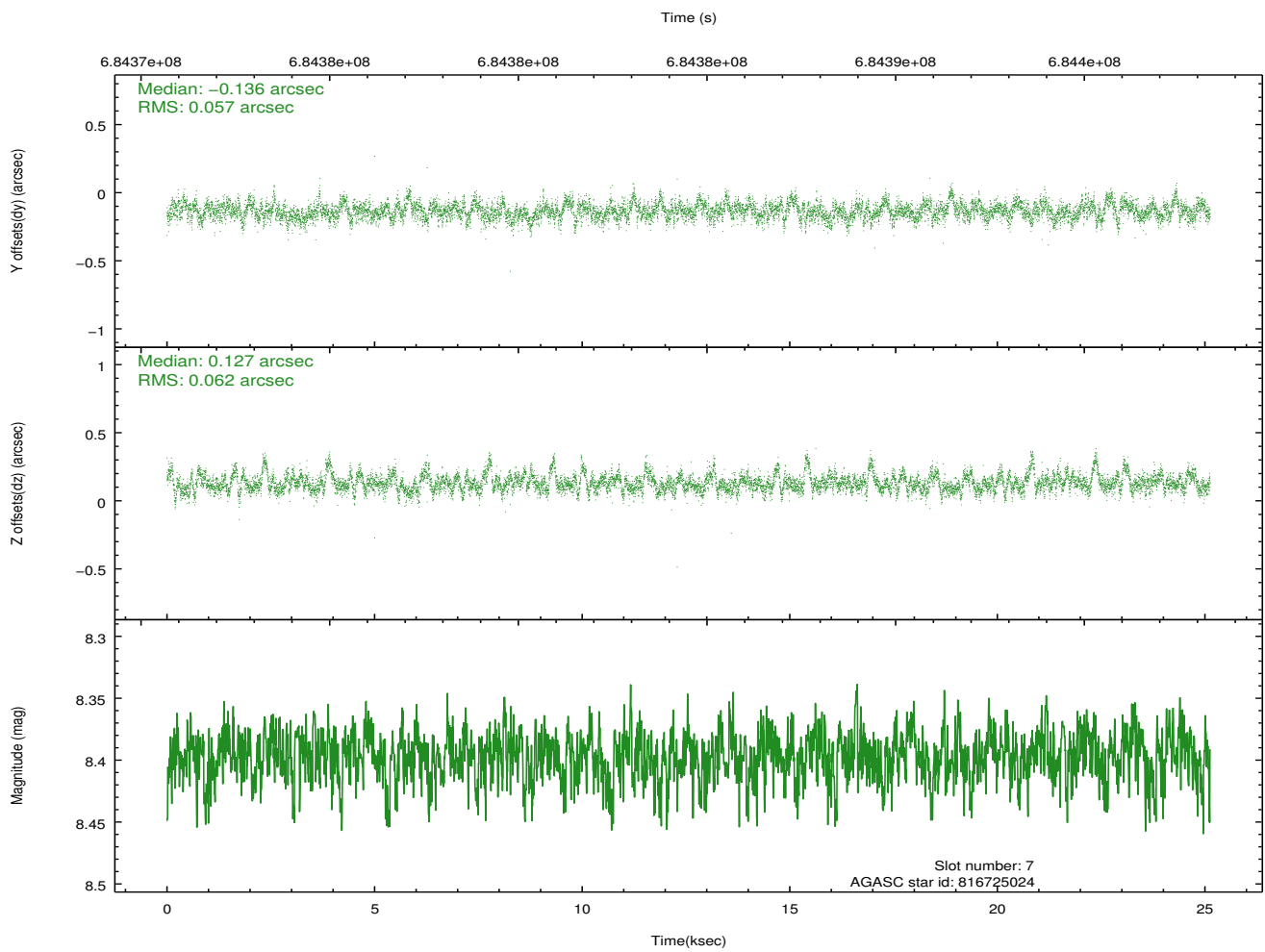
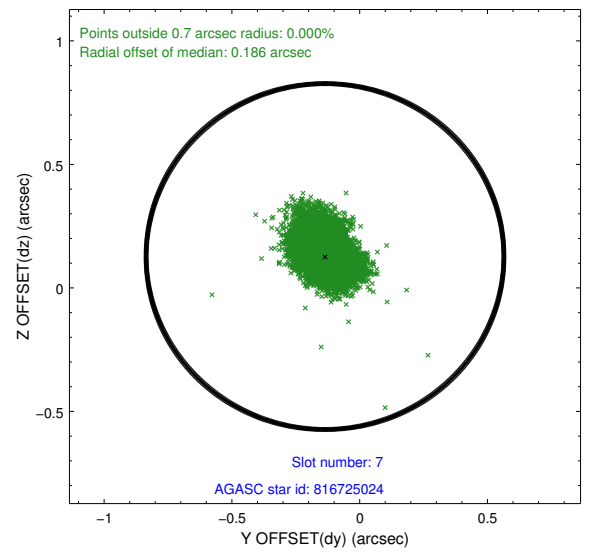
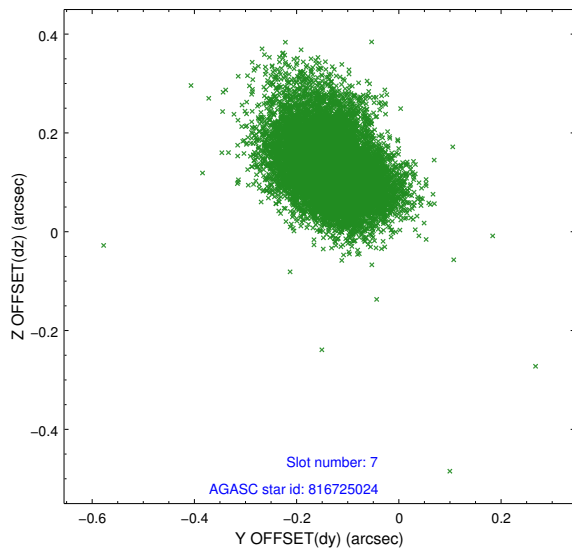
### 2.4.3 Slot 5



## 2.4.4 Slot 6

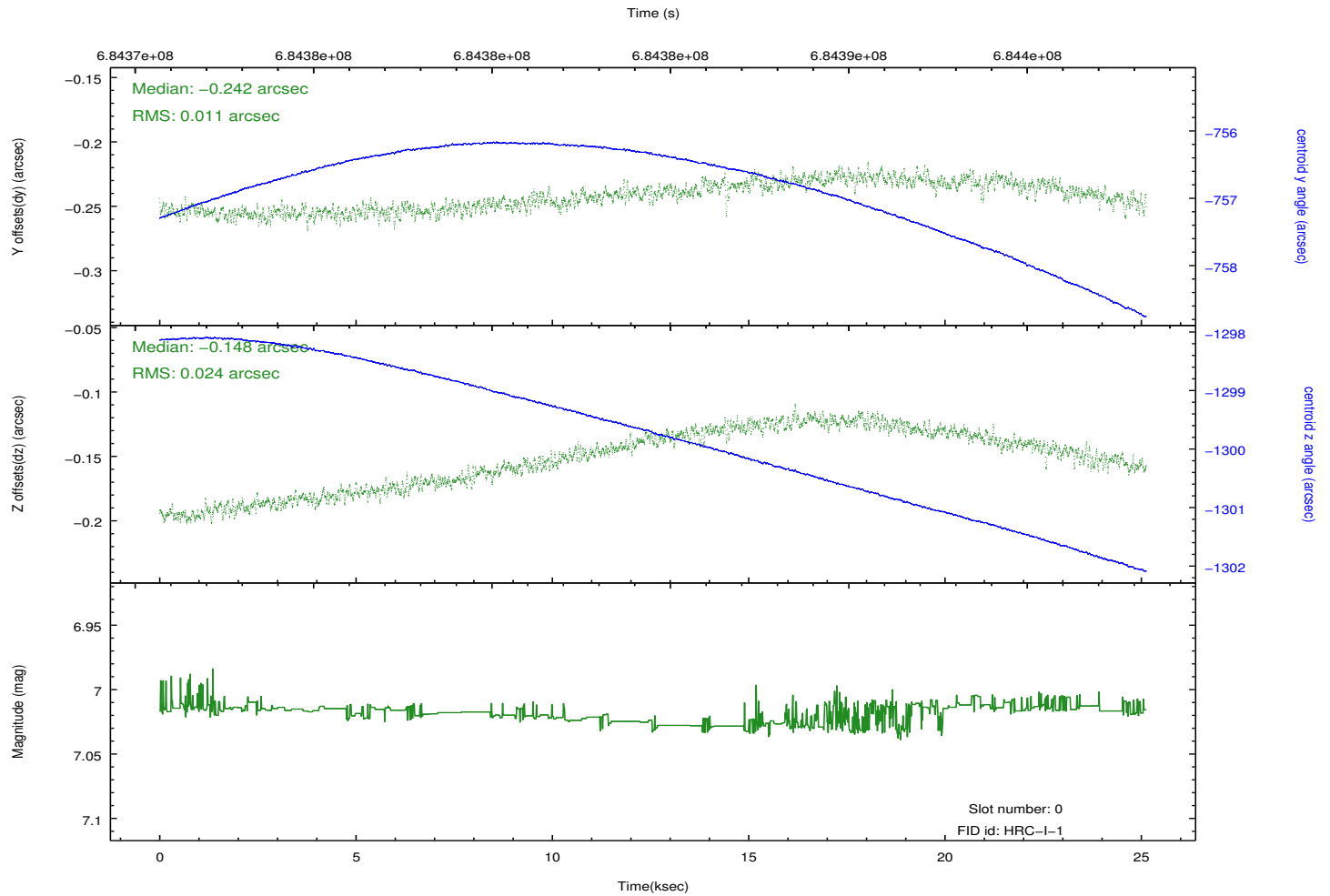
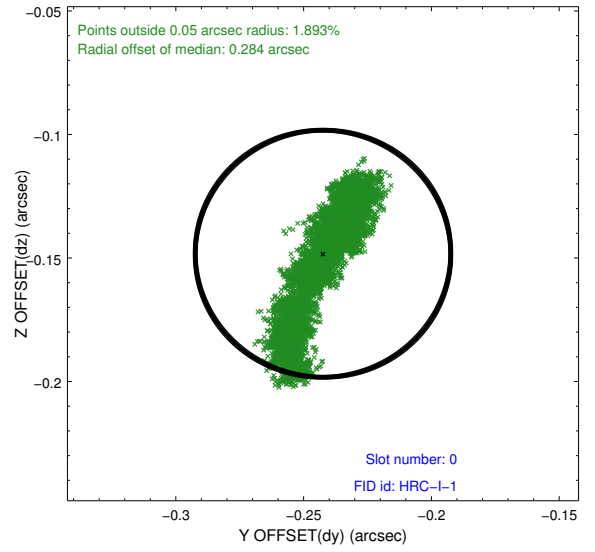
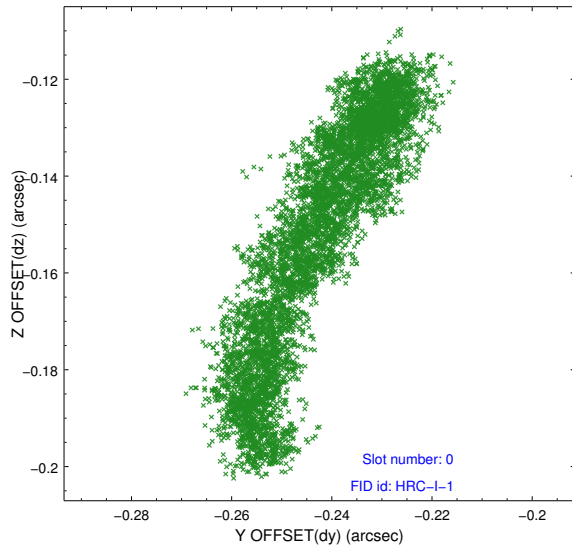


## 2.4.5 Slot 7

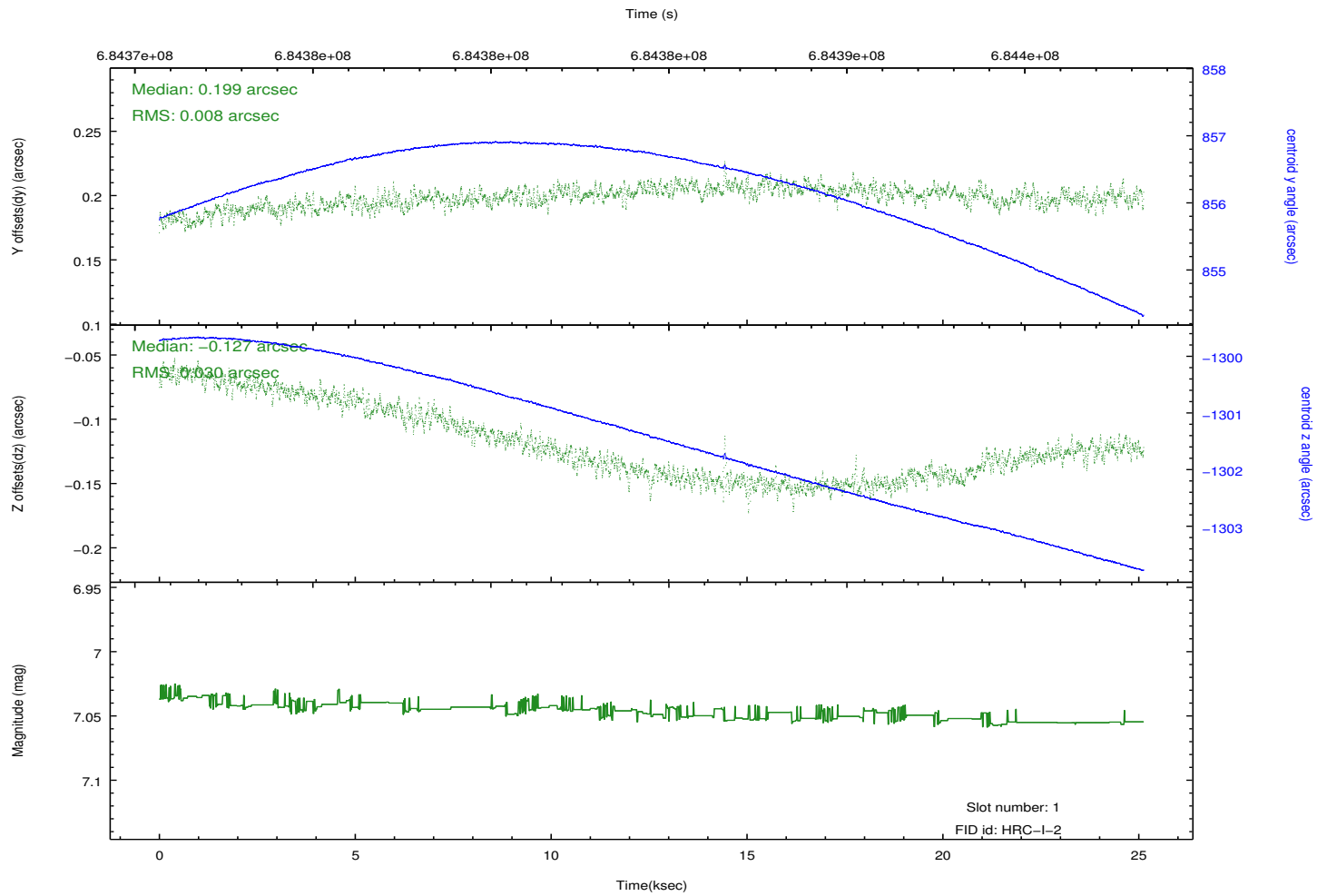
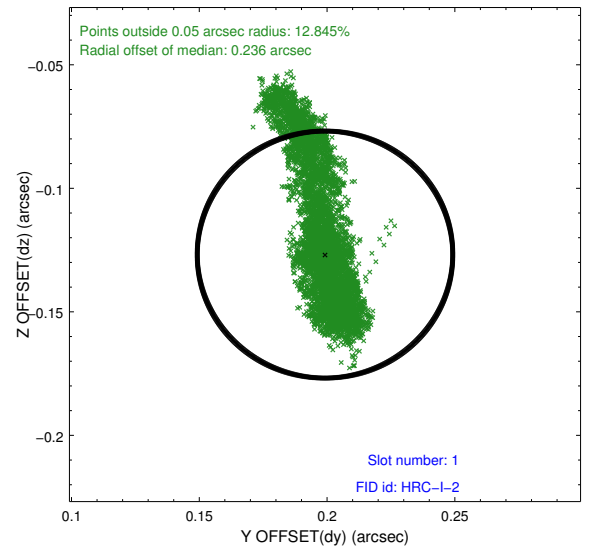
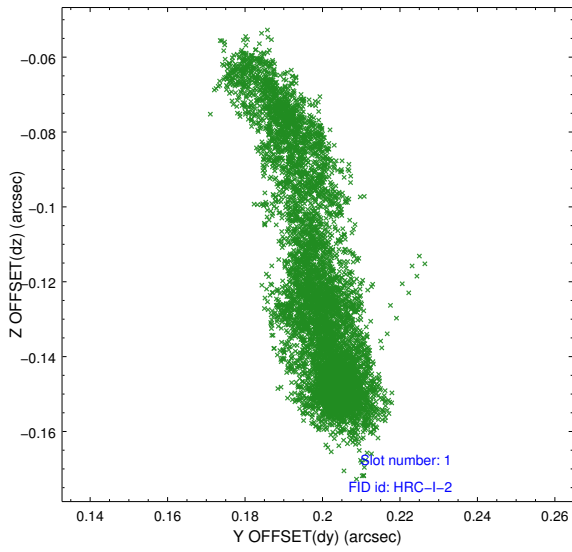


## 2.5 FID Slots

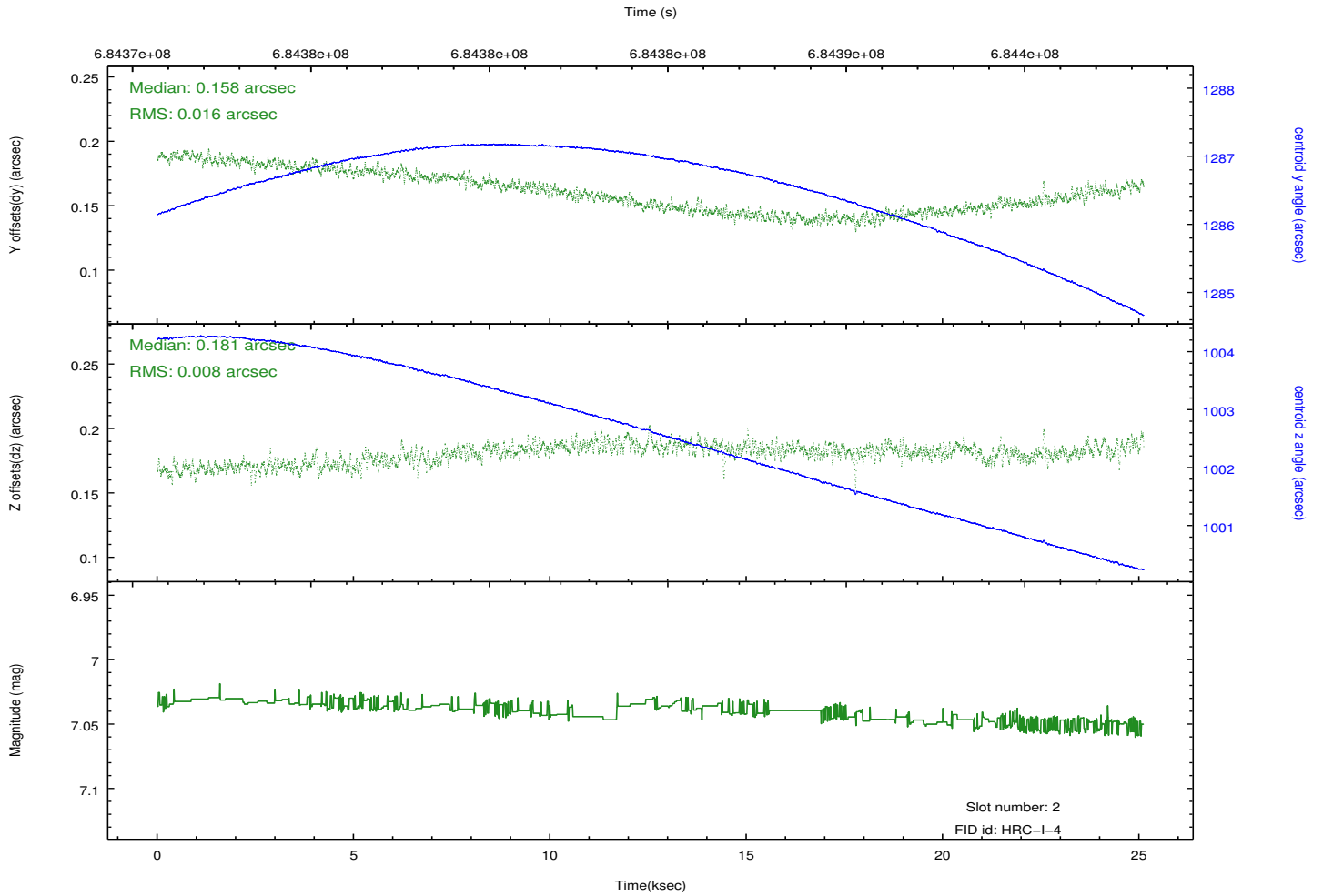
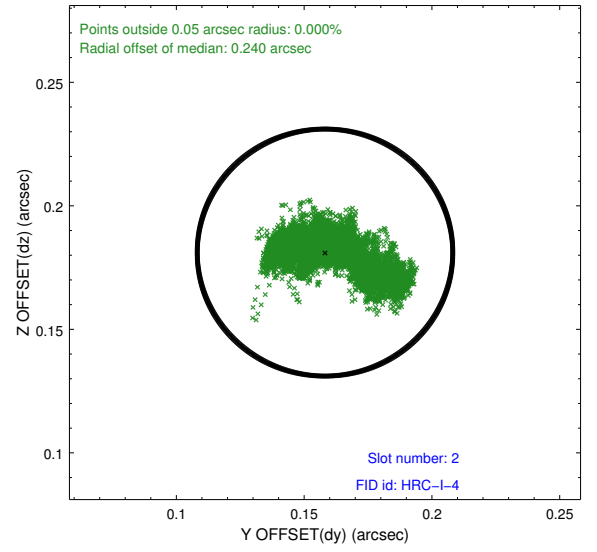
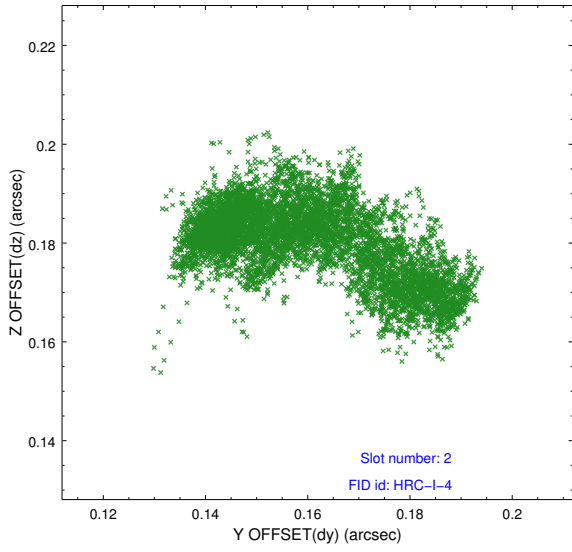
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2019.09.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	25.128132762909

## A.2 Comments

Joint proposal with XMM.

This is an observation of a moving target. Users will need to run `sso_freeze` or similar software to position the events in the reference frame of the target.