

# V&V Reference Report

## L2 ASCDS Version : 10.7.1

Observation 21796 - L2 Version 1  
Chandra X-Ray Center

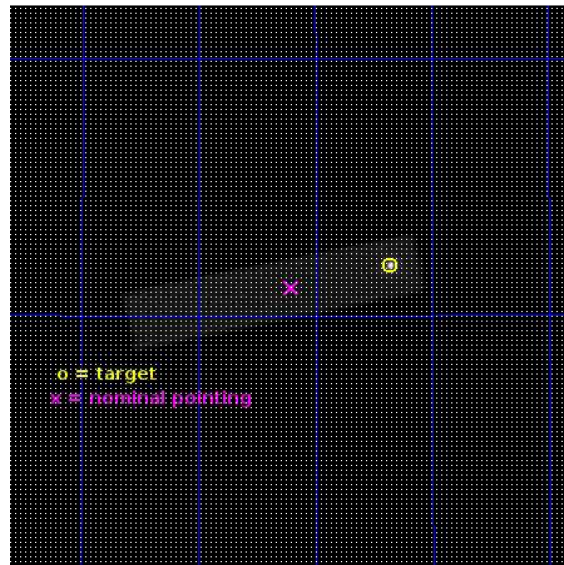
L2 Processing Date : Apr 4 2019

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# 1 Front

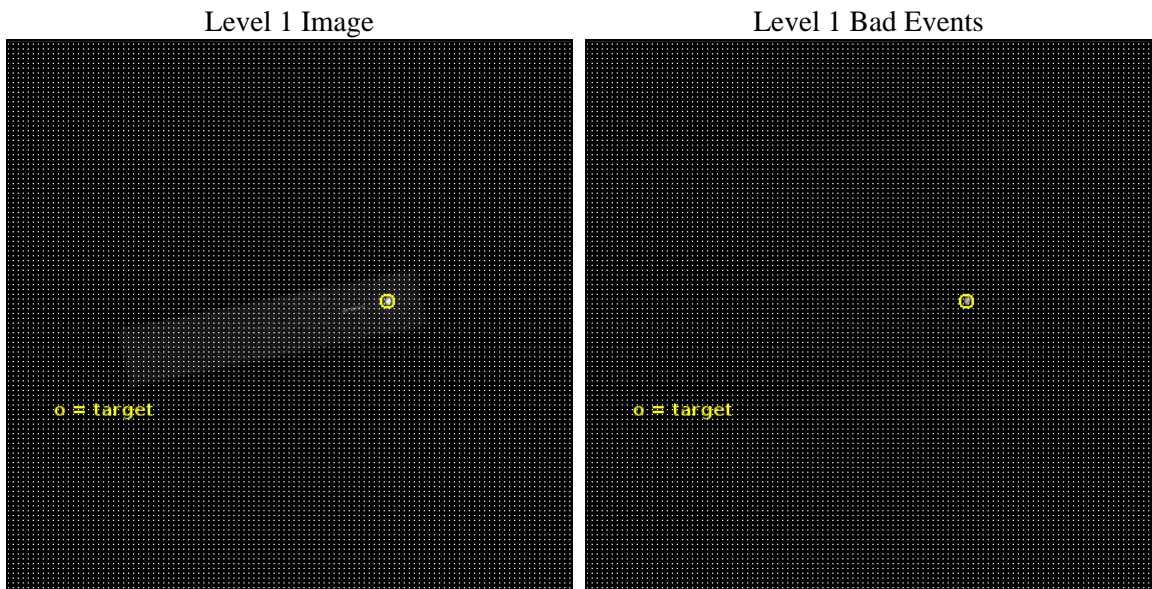
seq_num	291482	Sequence number
obs_id	21796	Observation id
title	AO-20 HRC-S Gain Calibration Observations of HZ43	Proposal title
observer	CXC Calibration	Principal investigator
object	HZ43	Source name
ra_targ	199.090076	Observer's specified target RA [deg]
dec_targ	29.098119	Observer's specified target Dec [deg]
ra_nom	199.30117951291	Nominal RA [deg]
dec_nom	29.054522781339	Nominal Dec [deg]
roll_nom	167.96420575517	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1762.2313556671	[s]
livetime	1086.1513011301	Ontime multiplied by DTCOR
l2events	309788	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	1700.000000	[s] Scheduled observation exposure time
ascdsver	10.7.1	Processing system revision	ontime	1762.2313556671	[s]
caldsver	4.8.2	&#160	l1events	407105	Number of level 1 events
date	2019-04-04T11:37:11	Date and time of file creation			
revision	1	Processing version of data			

### 2.1.3 Events

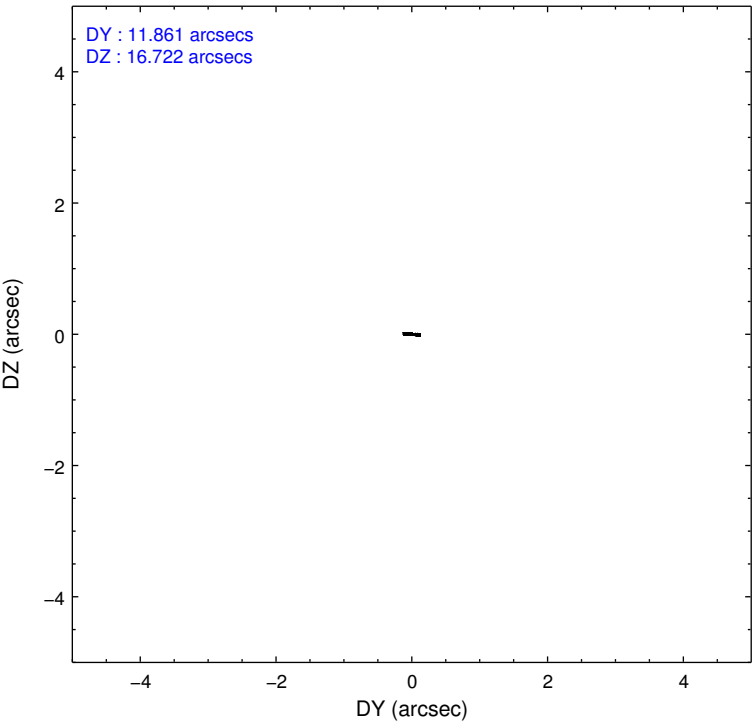
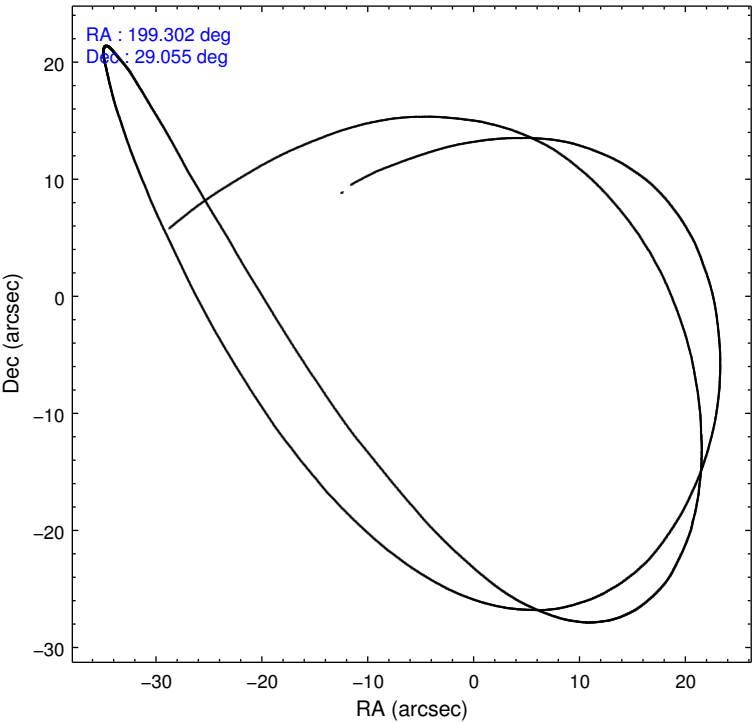
Level 1 Events

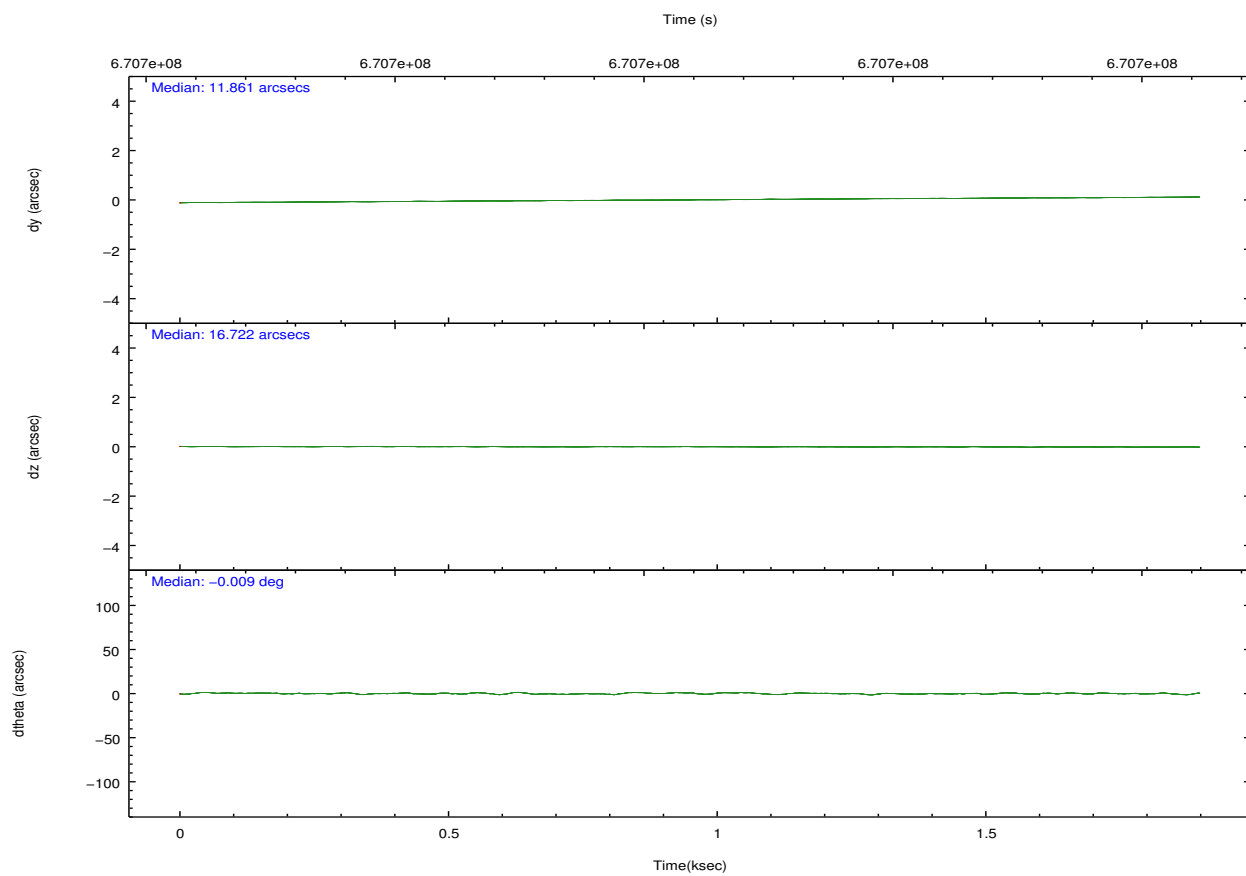
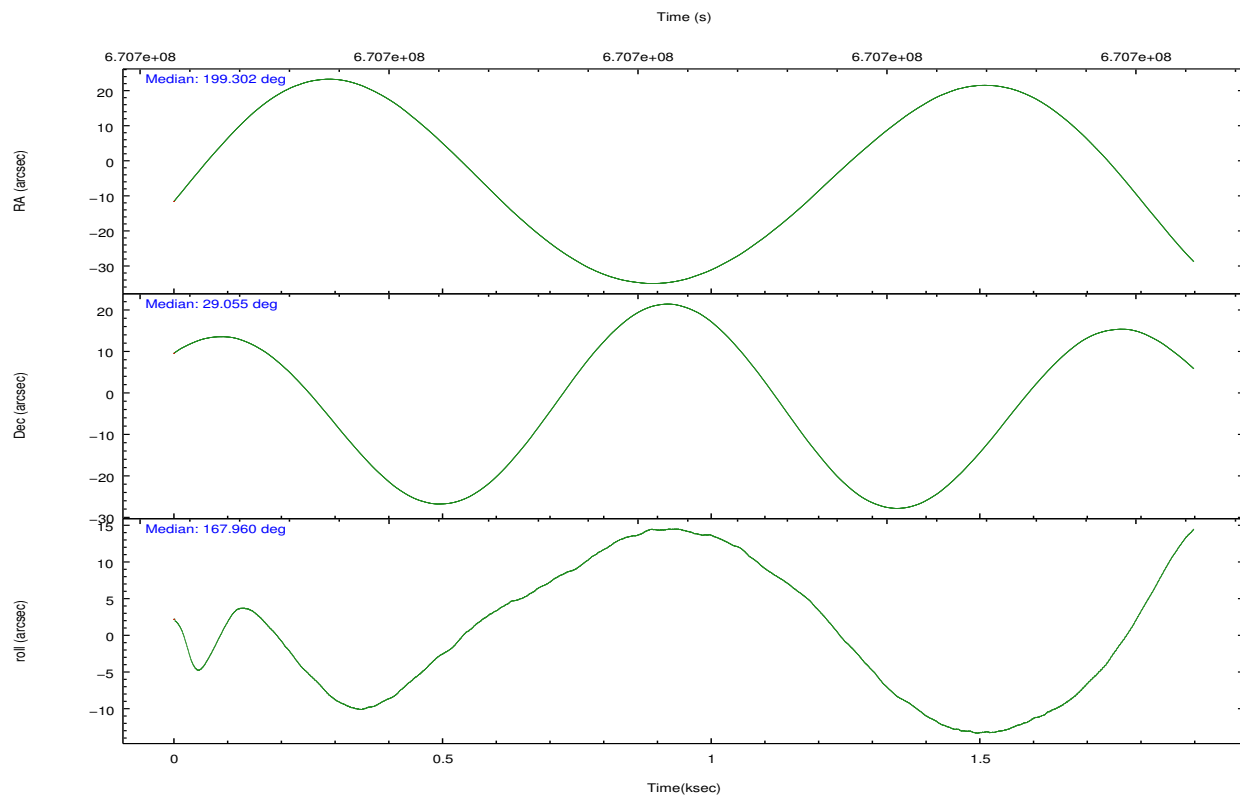
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	553	405978	574
rejected events	553	81041	574
rejected %	100%	19%	100%

## 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	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	OBSERVING	OBSERVING			
Observation mode	POINTING	POINTING			
[deg] Pointing RA	199.330510	199.301179512909			
[deg] Pointing Dec	29.064416	29.05452278133893			
[deg] Pointing Roll	167.882611	167.9642057551689			
[mm] SIM focus pos	-1.533336	-1.526339935833849			
[mm] SIM defocus	7.710433287538843e-07	0.006996703570447904			
[mm] SIM translation stage pos	250.455976	250.466033080201			
[mm] SIM translation stage offset	0	-0.01005468664627074			
[s] Observation start time (MET)	670701852.184000	670701476.5785201			
Observation start date	2019-04-03T18:03:03	2019-04-03T17:57:56			
[s] Observation end time (MET)	670703552.184000	670703686.47865			
Observation end date	2019-04-03T18:31:23	2019-04-03T18:34:46			

2.3 Aspect





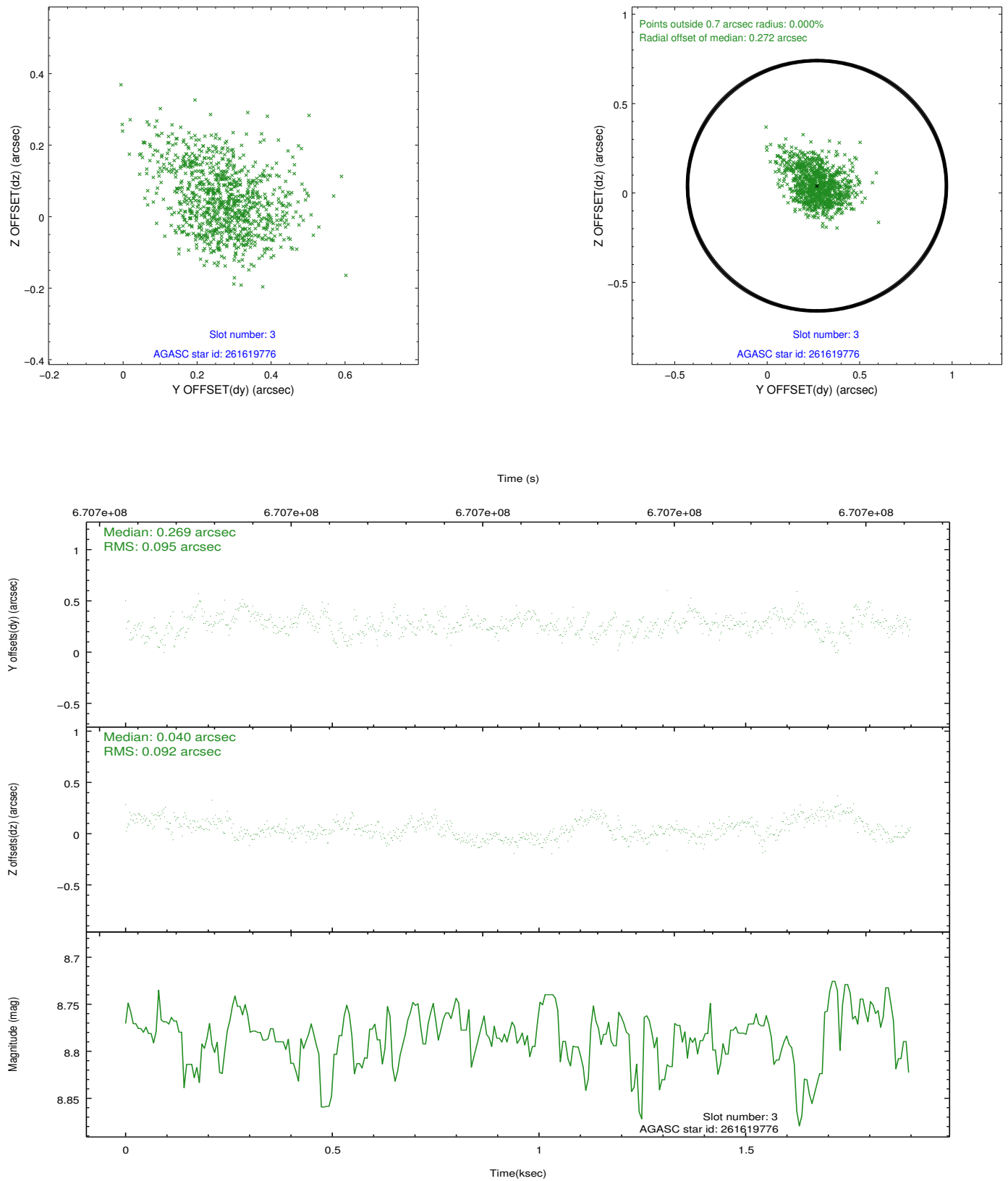
Slot Statistics

pt	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-S-1	7.09	464	1.000	-0.106	-0.172	0.007	0.012	0.000000	0.000000	-1166.29	-465
1	FID		HRC-S-2	7.08	464	1.000	0.510	-0.161	0.005	0.008	0.000000	0.000000	1231.46	-459
2	FID		HRC-S-3	7.07	464	1.000	-0.014	0.031	0.007	0.013	0.000000	0.000000	-1166.37	562
3	GUIDE	used	261619776	8.78	927	1.000	0.269	0.040	0.138	0.230	198.654383	29.401174	2332.96	-743
4	GUIDE	used	261621400	6.95	927	1.000	-0.240	-0.237	0.094	0.145	198.901600	28.741982	1088.10	1418
5	GUIDE	used	261623624	9.09	927	1.000	0.051	0.053	0.157	0.268	199.611555	28.454113	-1324.05	1964
6	GUIDE	used	261624456	7.29	927	1.000	-0.031	0.149	0.105	0.206	199.758056	28.567828	-1691.52	1464
7	GUIDE	used	261629720	8.10	926	1.000	-0.048	-0.020	0.102	0.176	199.236176	29.044452	278.41	136

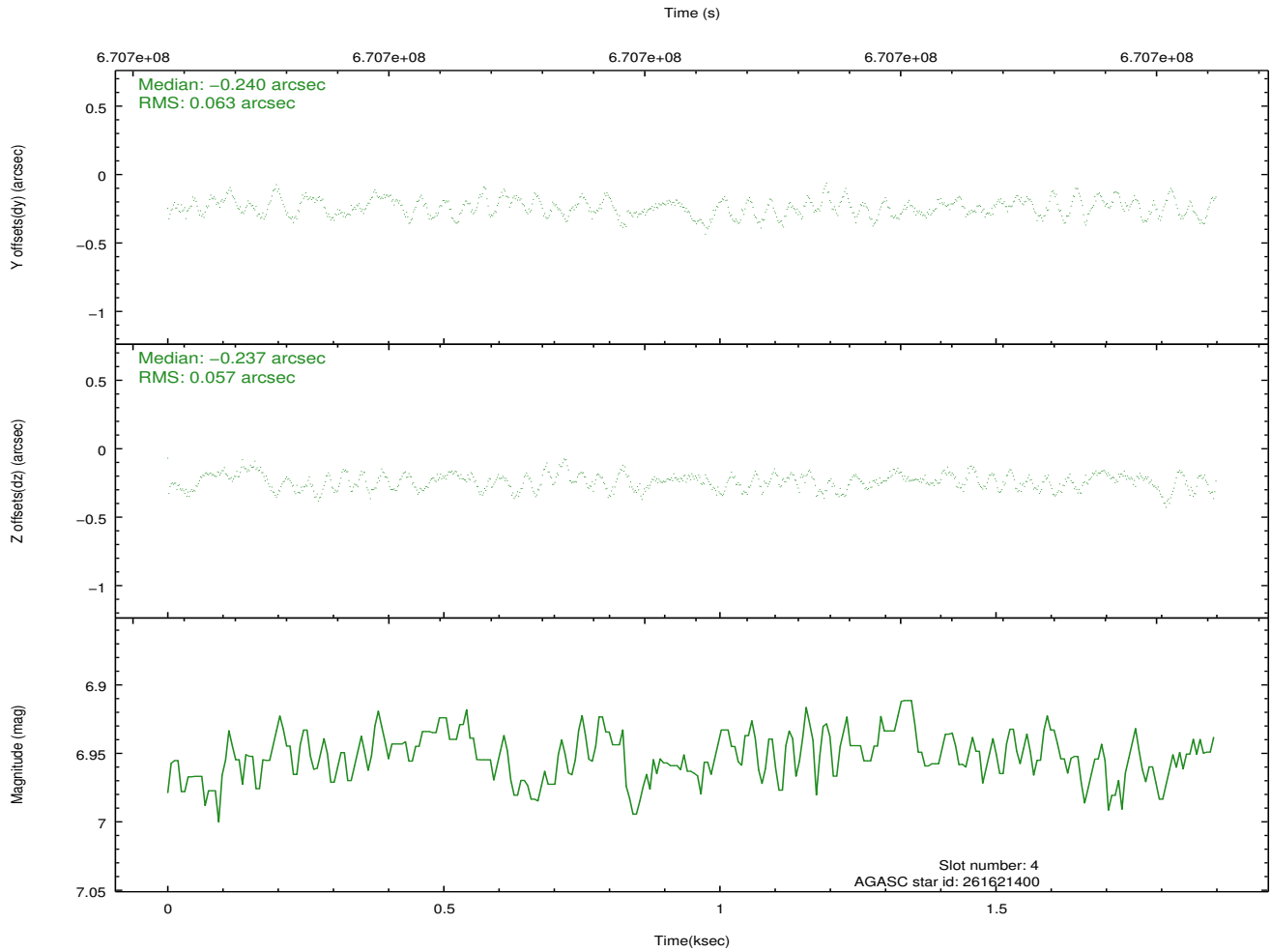
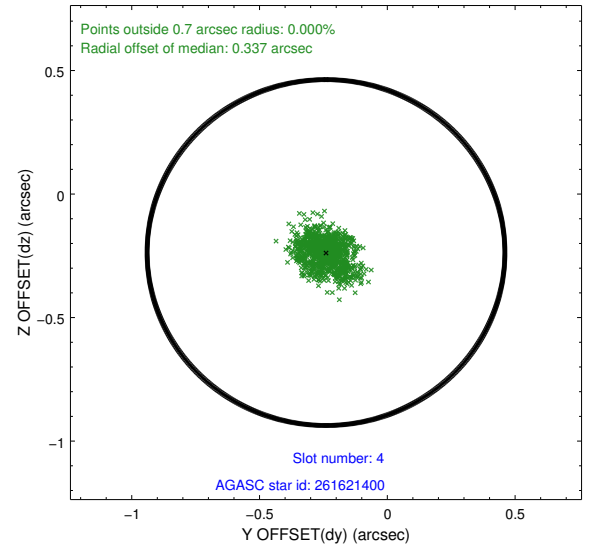
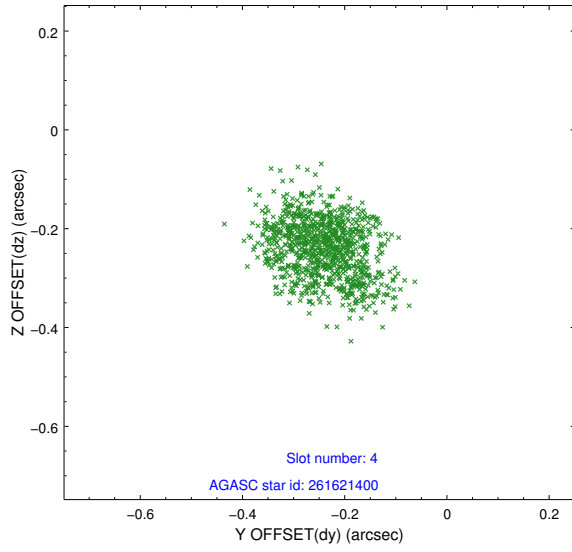


## 2.4 Star Slots

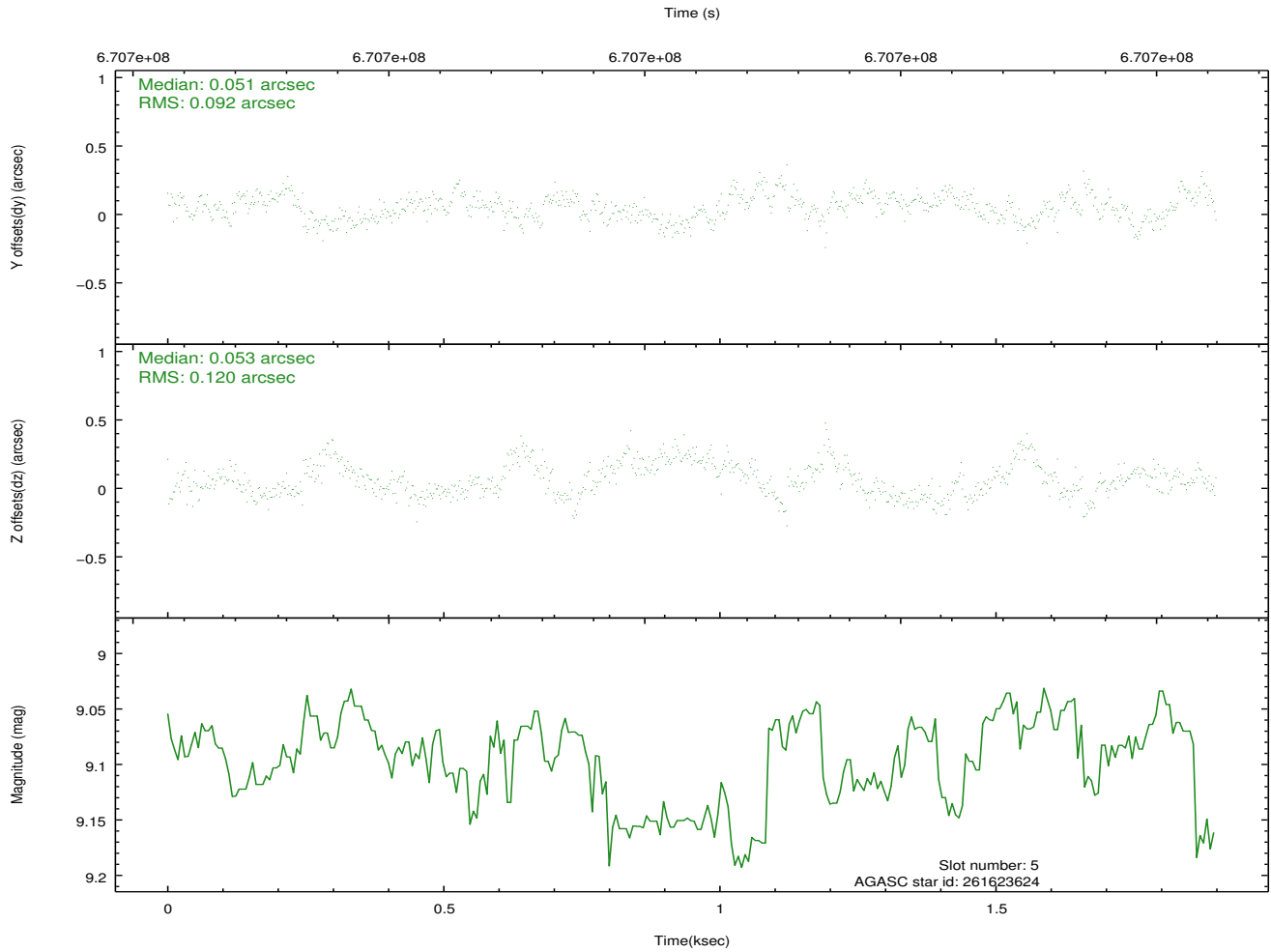
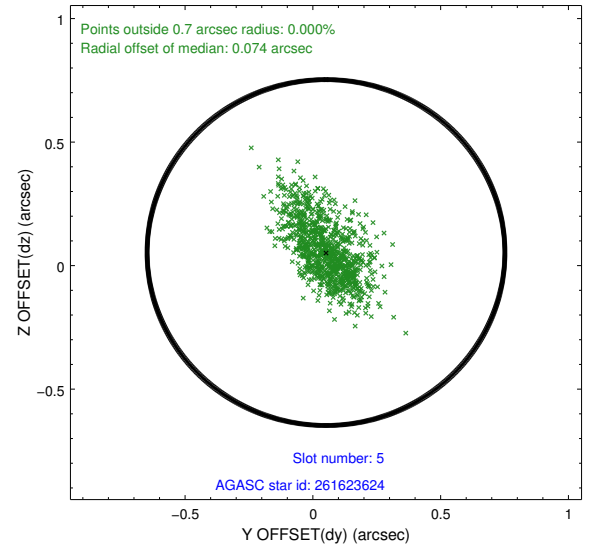
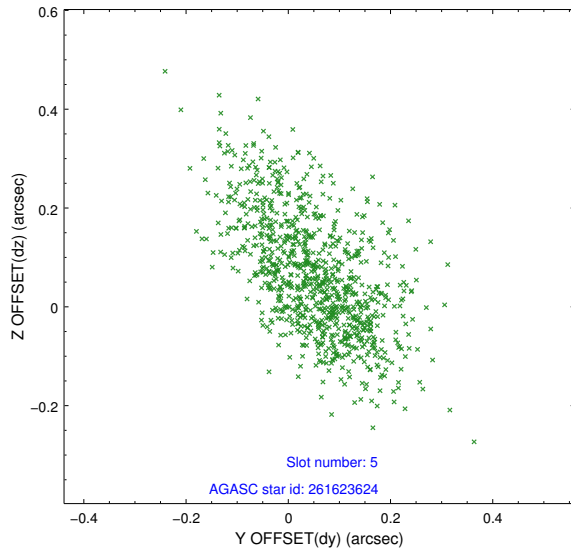
### 2.4.1 Slot 3



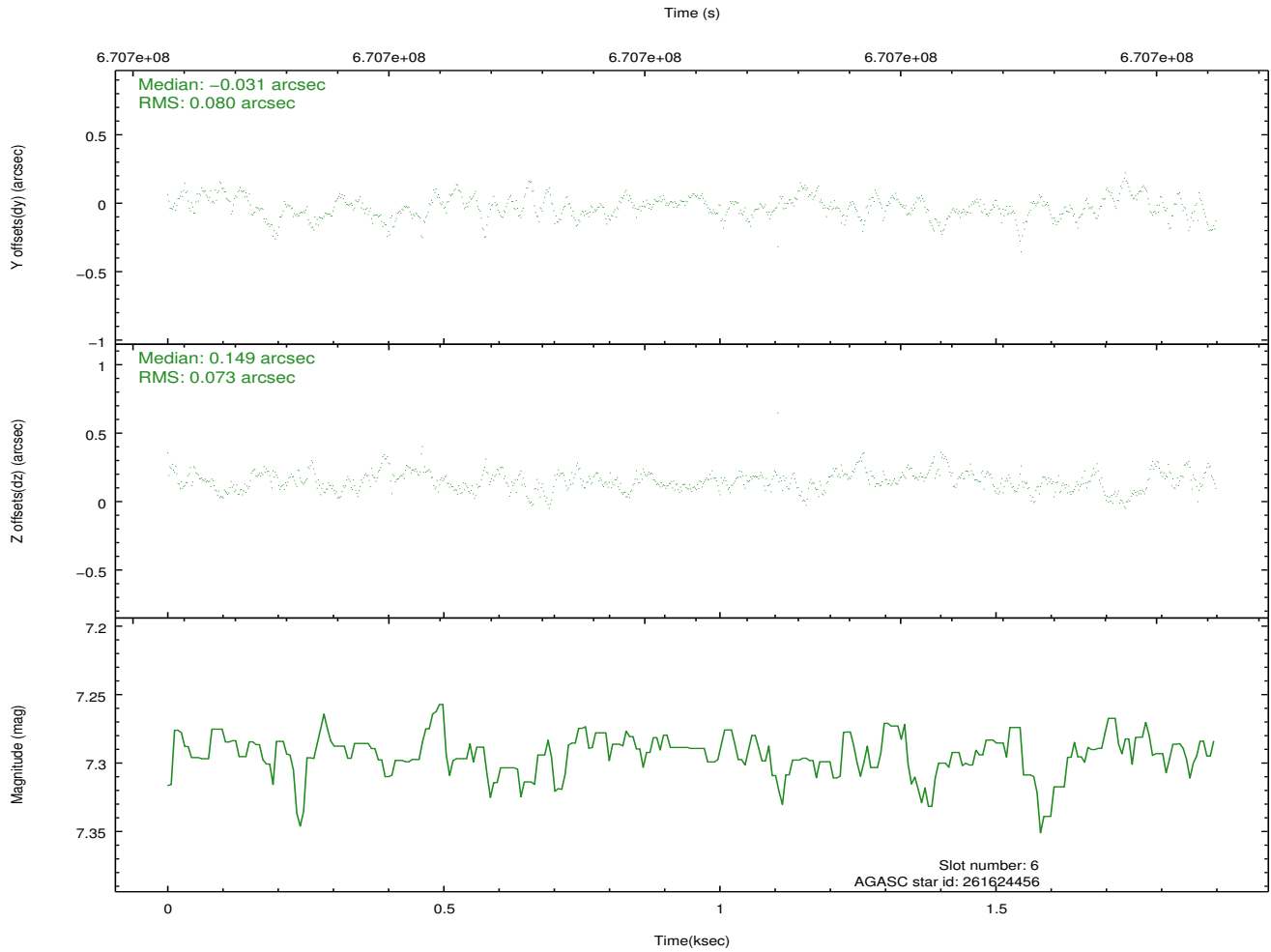
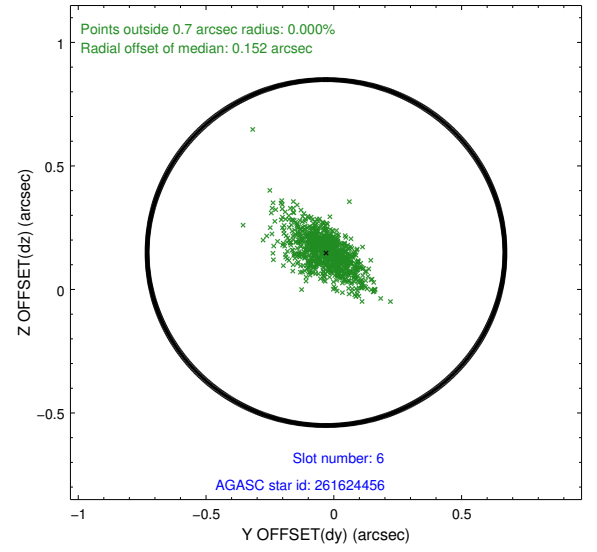
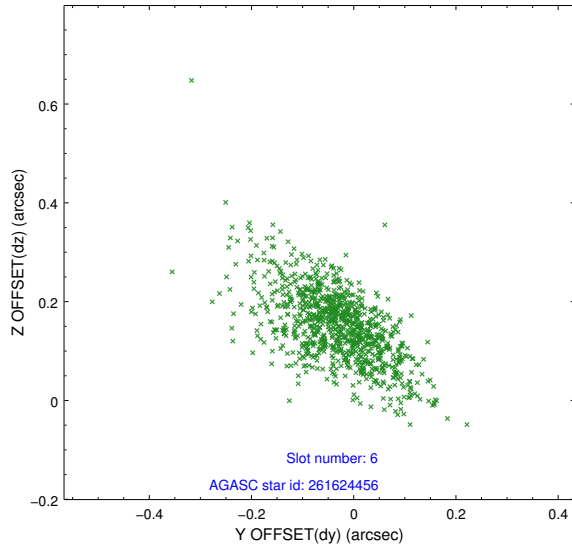
## 2.4.2 Slot 4



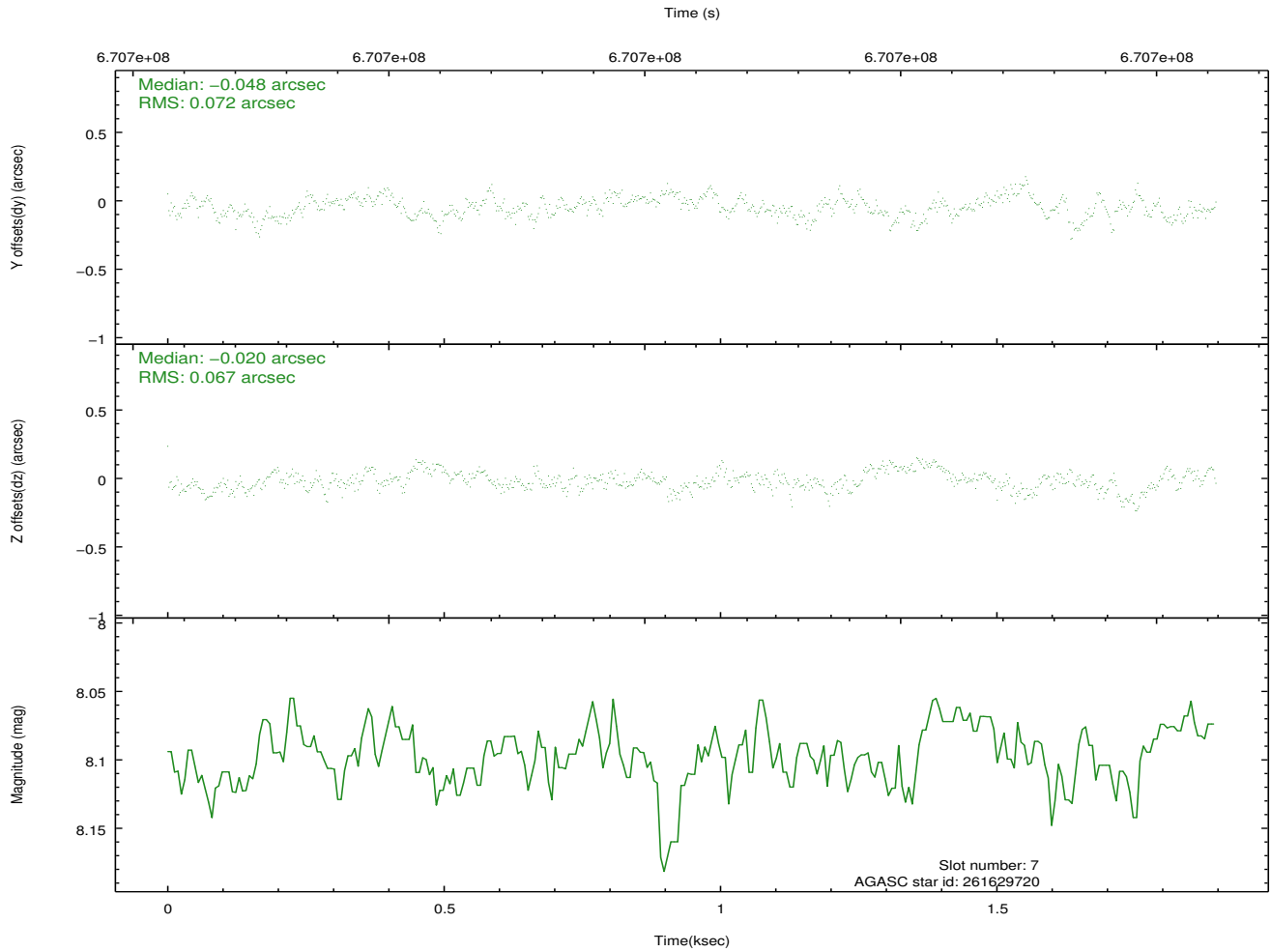
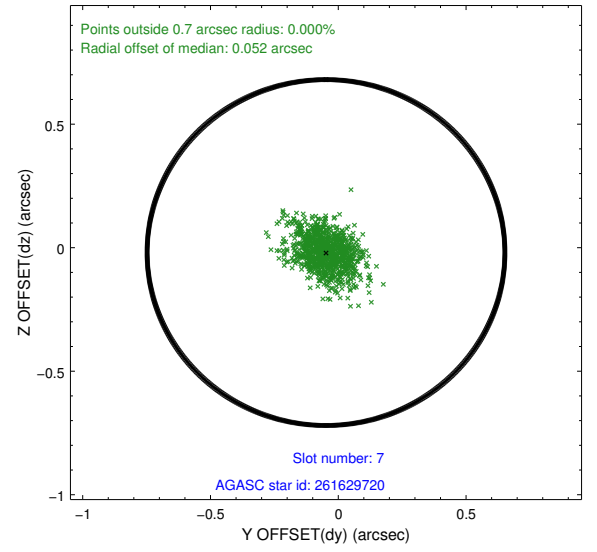
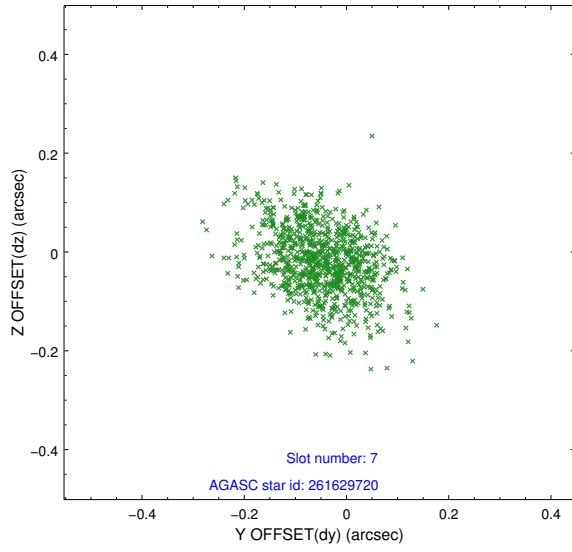
### 2.4.3 Slot 5



## 2.4.4 Slot 6

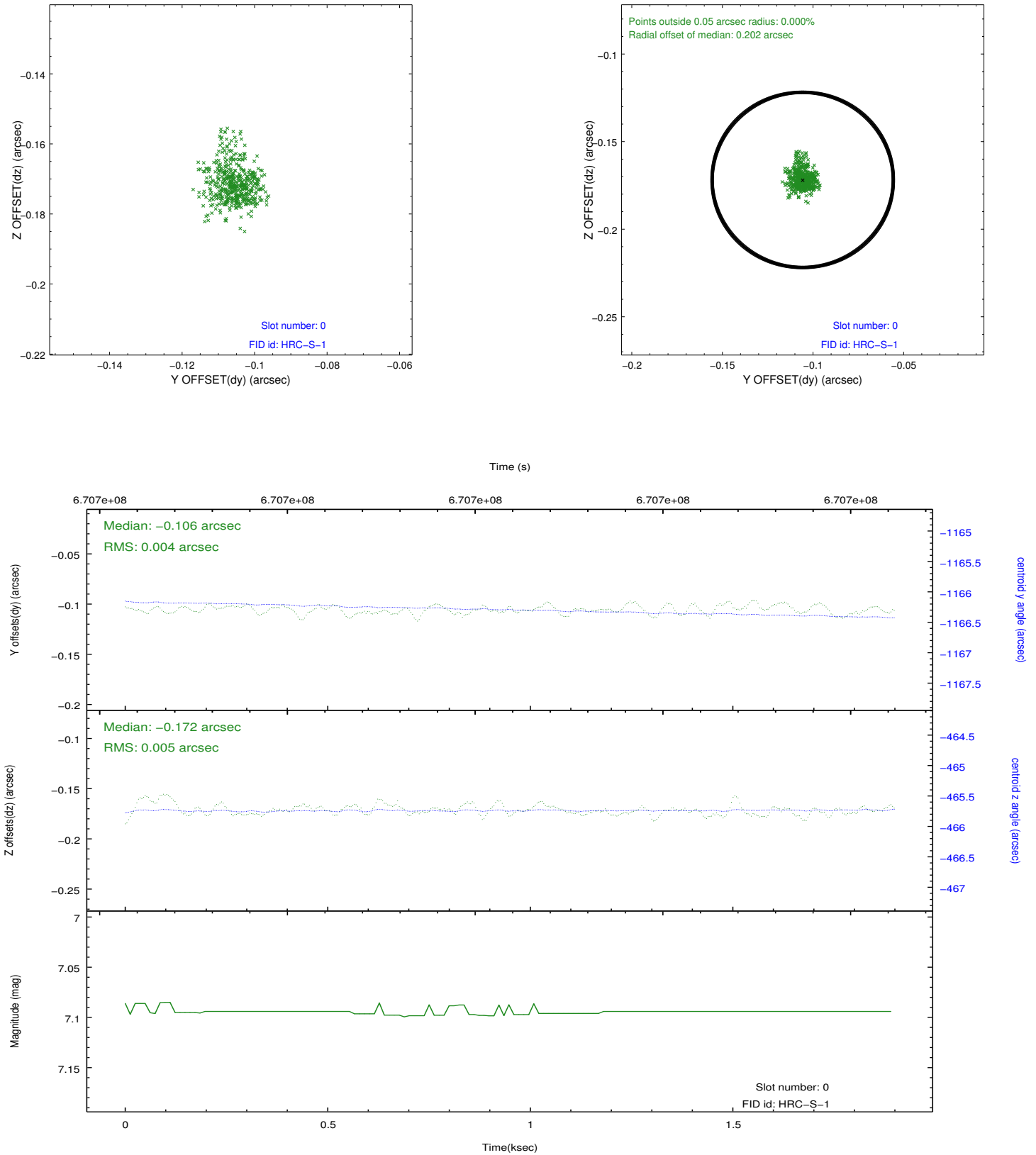


## 2.4.5 Slot 7

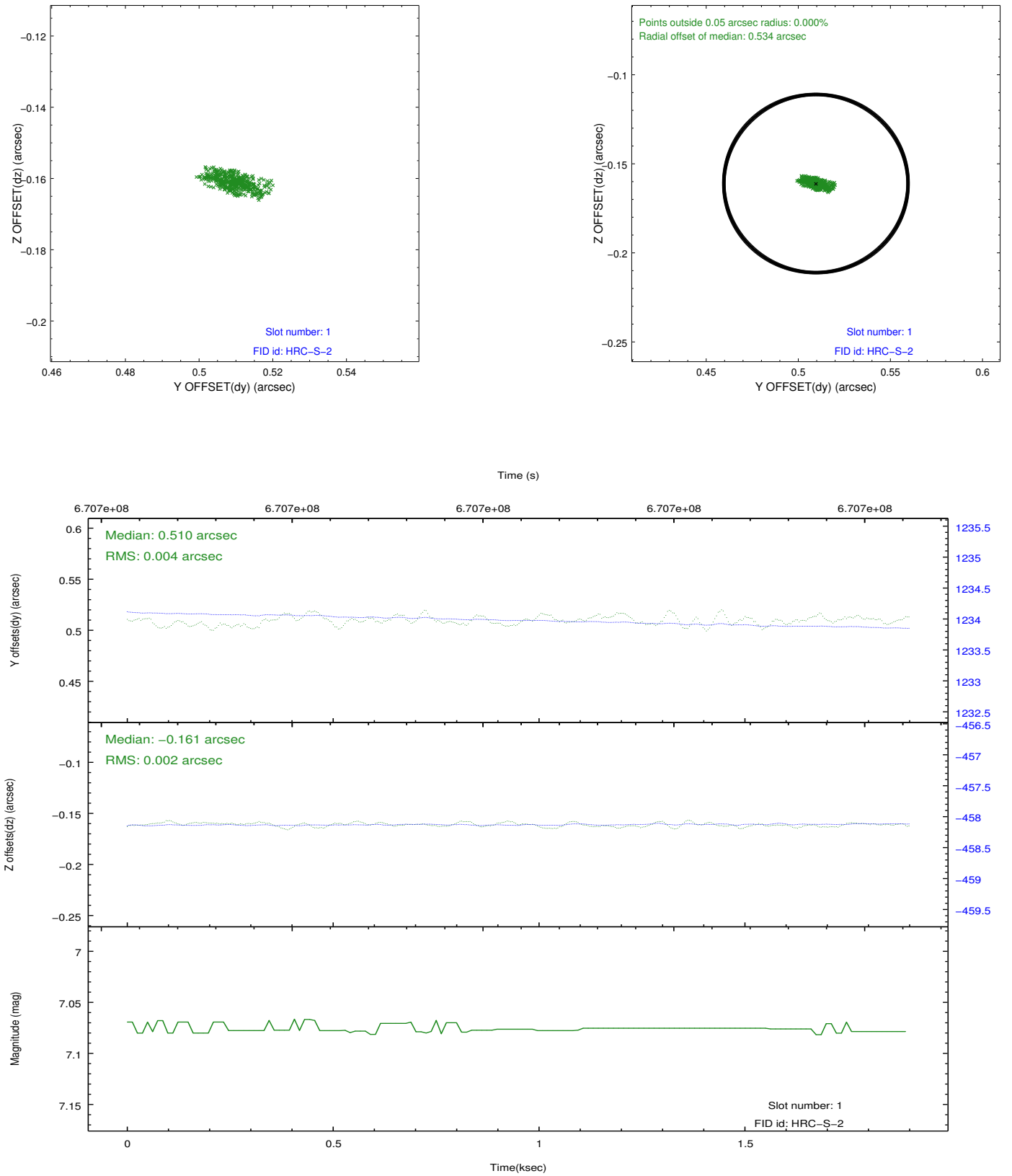


## 2.5 FID Slots

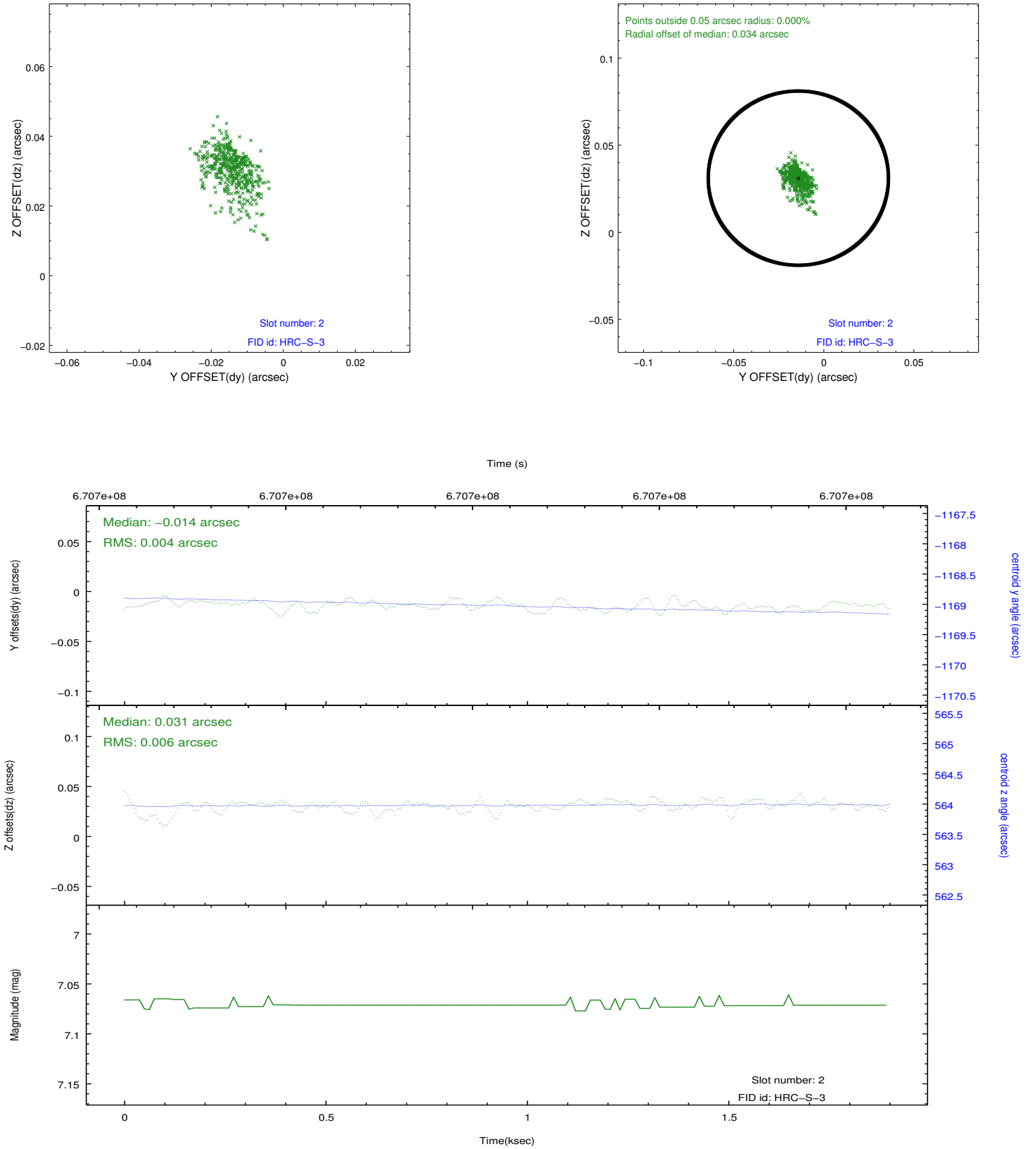
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2





# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2019.04.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.7622313556671

## A.2 Comments

This is a calibration observation. Target is off-axis. PSF is appropriate for this off-axis position. Custom dither parameters. ==== Due to corruption of the secondary science data during this observation, some instrument parameters have bogus value. PLEASE NOTE: All the event data in this observation are good. The short gaps in the GTI intervals can be eliminated (i.e., use the first START and last STOP). THE DTF values during this observation can be estimated by dropping all the low values and averaging the remaining values near 1.0.