

# V&V Reference Report

## L2 ASCDS Version : 10.7.1

Observation 21800 - L2 Version 1  
Chandra X-Ray Center

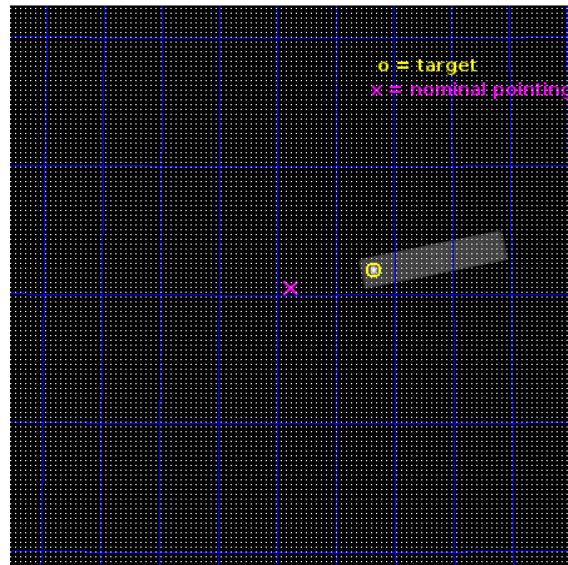
L2 Processing Date : Apr 4 2019

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# 1 Front

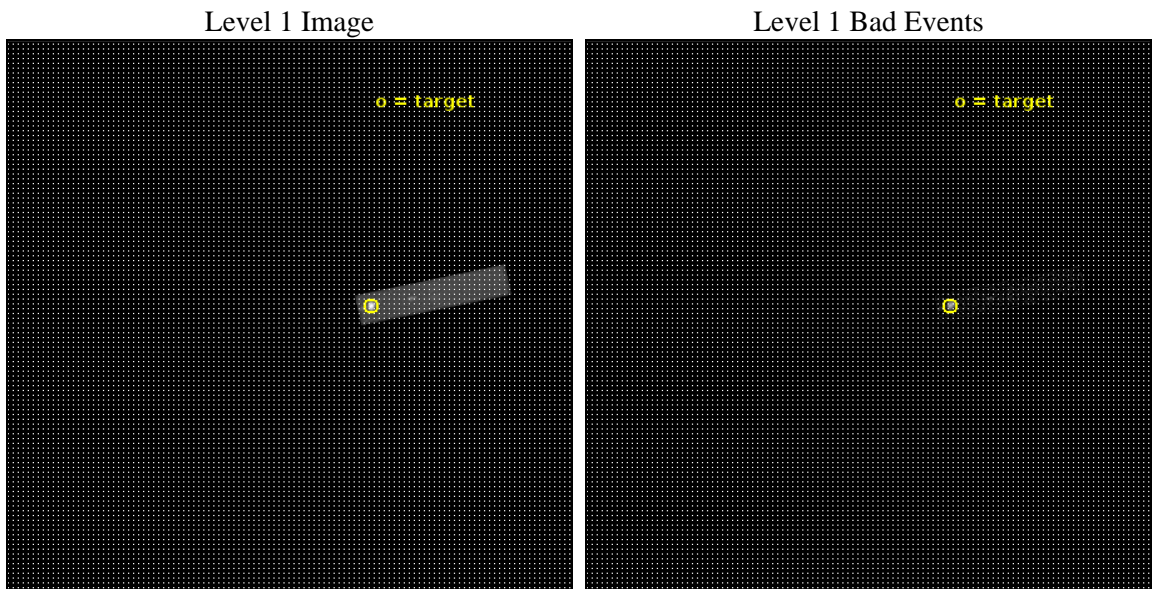
seq_num	291486	Sequence number
obs_id	21800	Observation id
title	AO-20 HRC-S Gain Calibration Observations of HZ43	Proposal title
observer	CXC Calibration	Principal investigator
object	HZ43	Source name
ra_targ	199.090076	Observer's specified target RA [deg]
dec_targ	29.098119	Observer's specified target Dec [deg]
ra_nom	199.43986367895	Nominal RA [deg]
dec_nom	29.028306514025	Nominal Dec [deg]
roll_nom	167.88504560601	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1881.1313624382	[s]
livetime	1571.1191645446	Ontime multiplied by DTCOR
l2events	321482	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	1881.1313624382	[s]
caldbver	4.8.2	&#160	l1events	407095	Number of level 1 events
date	2019-04-04T11:39:02	Date and time of file creation			
revision	1	Processing version of data			

### 2.1.3 Events

Level 1 Events

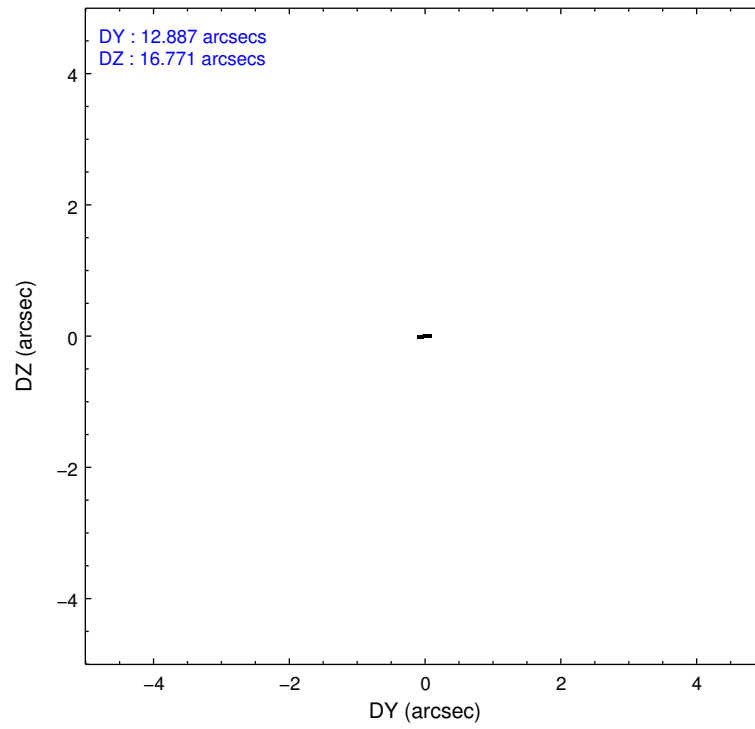
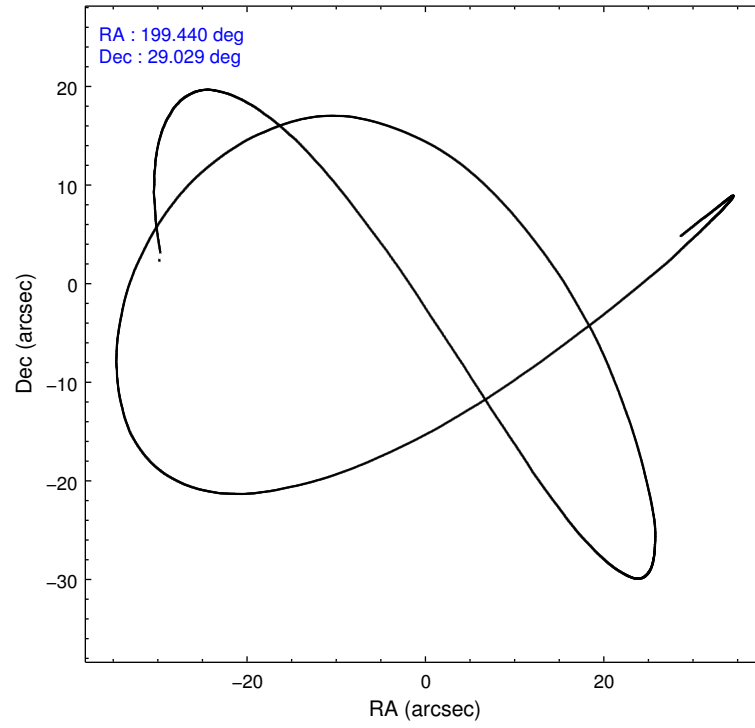
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	762	814	405519
rejected events	762	698	58772
rejected %	100%	85%	14%

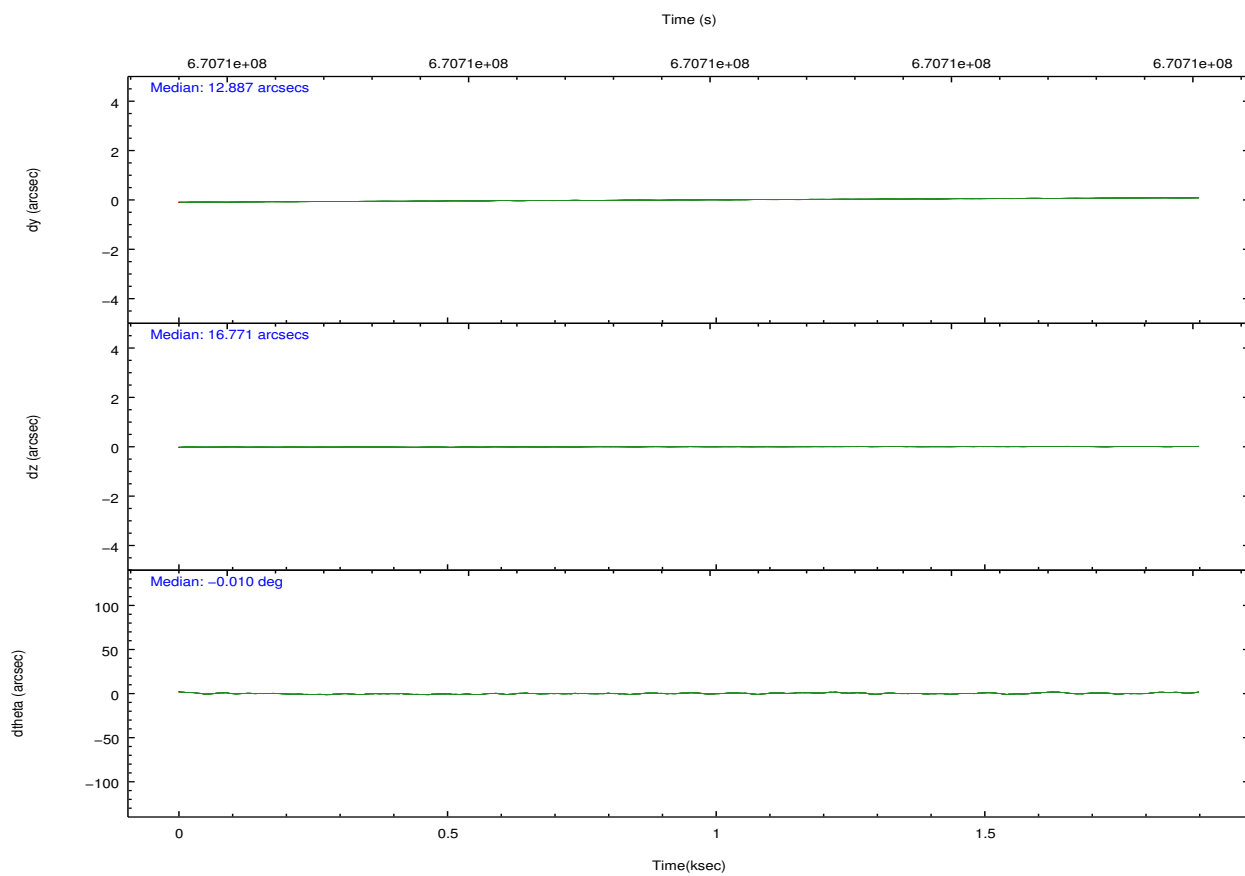
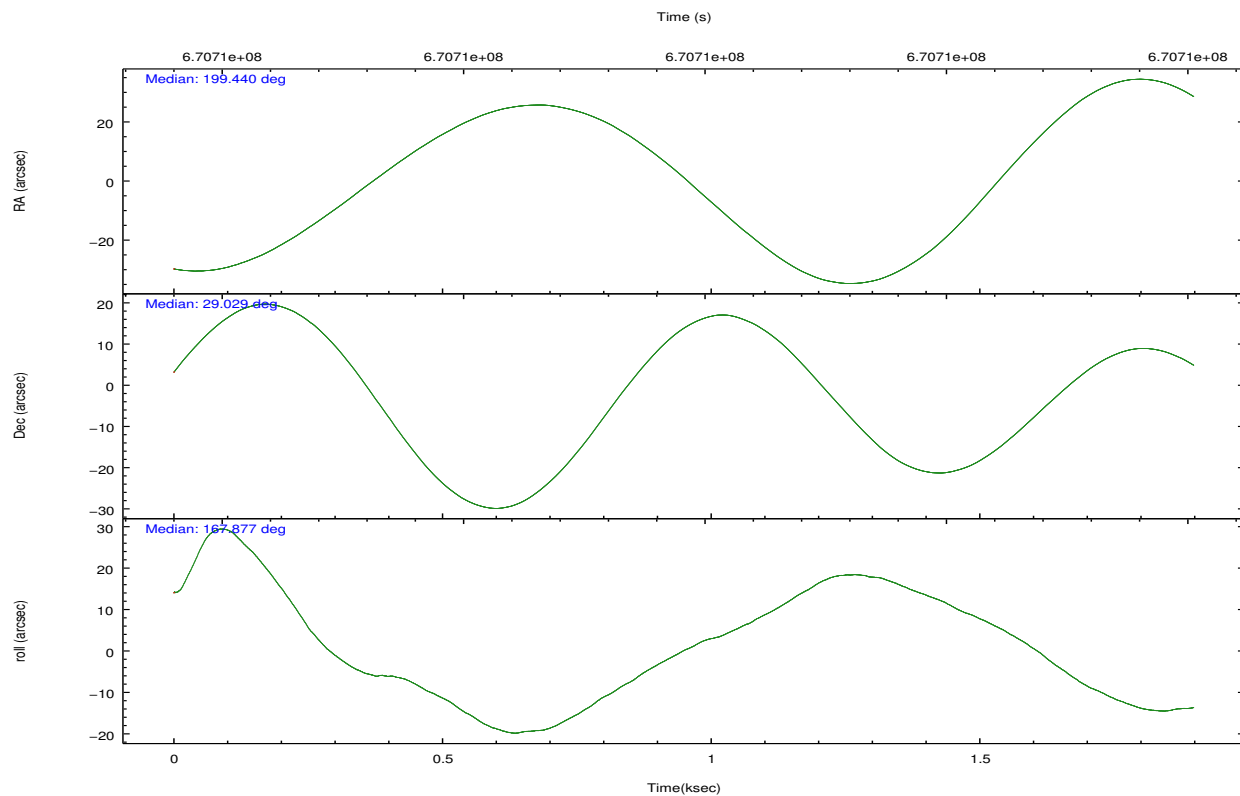
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-S	HRC-S
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
[deg] Pointing RA	199.470542	199.439863678947
[deg] Pointing Dec	29.037942	29.02830651402499
[deg] Pointing Roll	167.802867	167.8850456060136
[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)	670710692.184000	670710316.17905
Observation start date	2019-04-03T20:30:23	2019-04-03T20:25:16
[s] Observation end time (MET)	670712392.184000	670712526.07918
Observation end date	2019-04-03T20:58:43	2019-04-03T21:02:06

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

## 2.3 Aspect





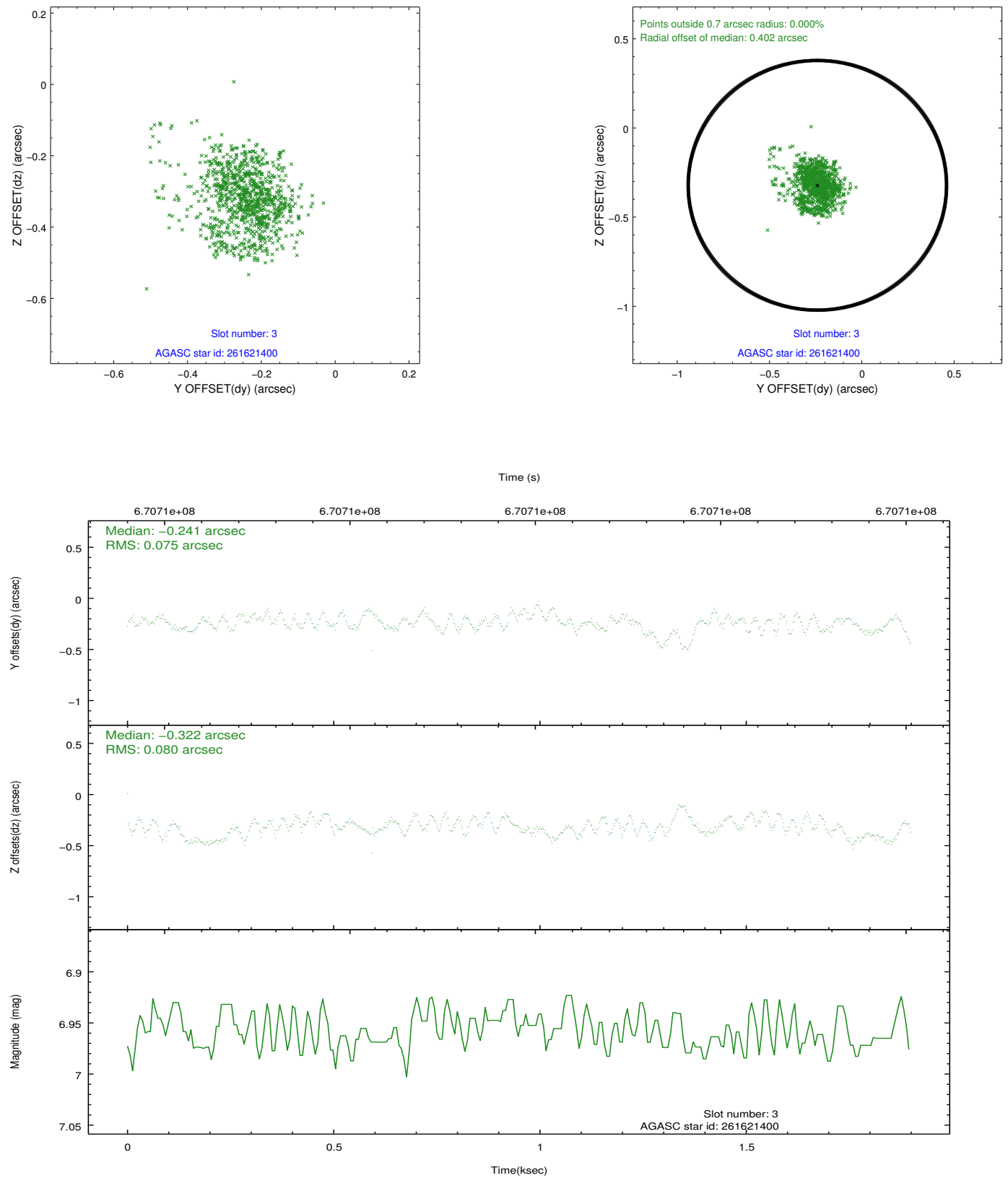
Slot Statistics

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	7.11	464	1.000	-0.108	-0.200	0.007	0.011	0.000000	0.000000	-1167.34	-465
1	FID		HRC-S-2	7.09	464	1.000	0.493	-0.153	0.004	0.008	0.000000	0.000000	1230.40	-459
2	FID		HRC-S-3	7.08	464	1.000	0.004	0.051	0.007	0.010	0.000000	0.000000	-1167.41	562
3	GUIDE	used	261621400	6.96	927	1.000	-0.241	-0.322	0.118	0.179	198.901600	28.741982	1531.87	1418
4	GUIDE	used	261623624	9.06	927	1.000	0.049	0.050	0.231	0.427	199.611555	28.454113	-877.44	1963
5	GUIDE	used	261624456	7.30	927	1.000	-0.033	0.196	0.150	0.213	199.758056	28.567828	-1244.76	1463
6	GUIDE	used	261626376	9.65	921	1.000	0.267	0.208	0.266	0.446	198.947288	29.347445	1841.30	-741
7	GUIDE	used	261629720	8.08	926	1.000	-0.027	-0.106	0.116	0.176	199.236176	29.044452	728.83	133

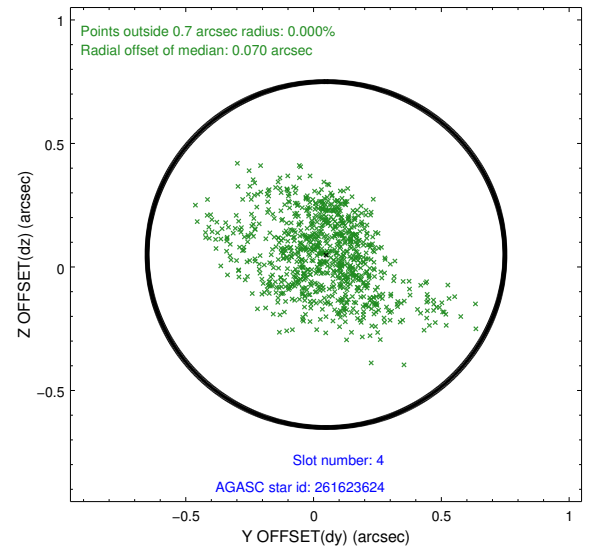
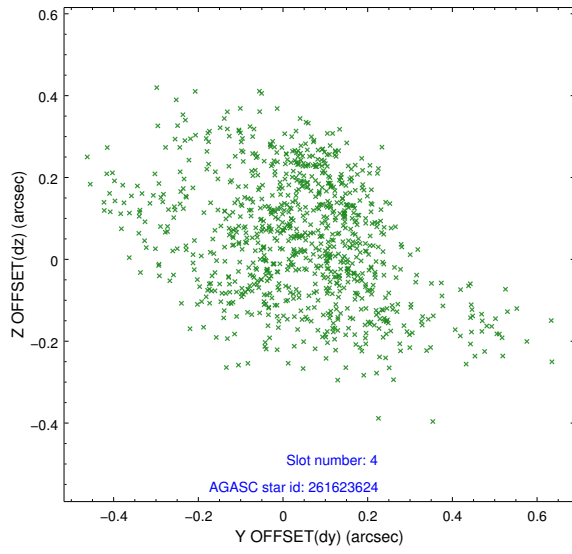


## 2.4 Star Slots

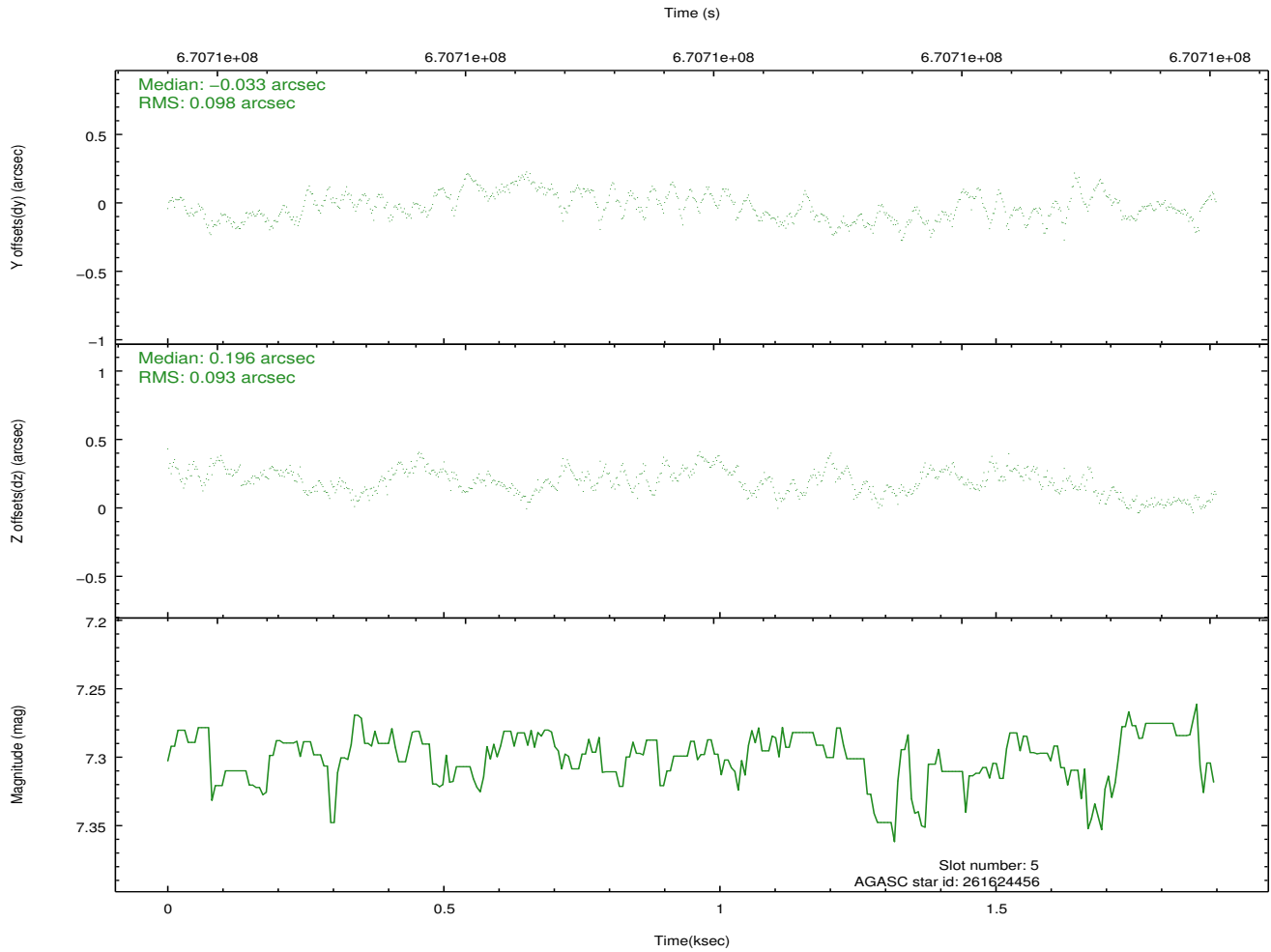
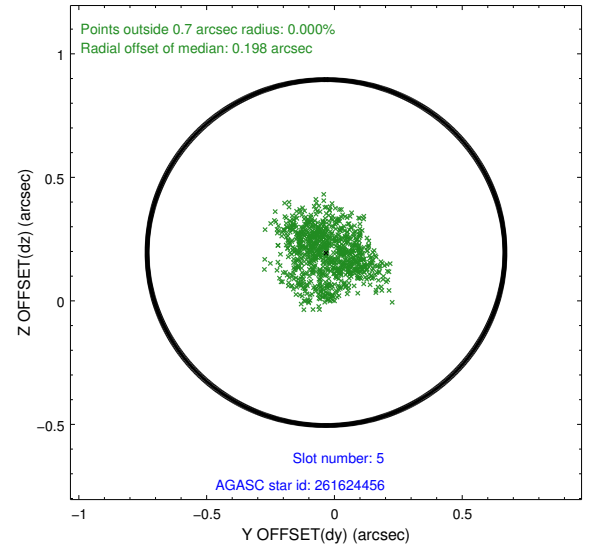
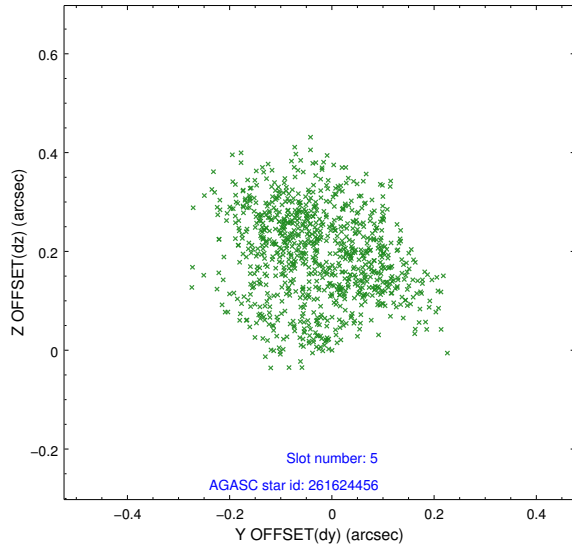
### 2.4.1 Slot 3



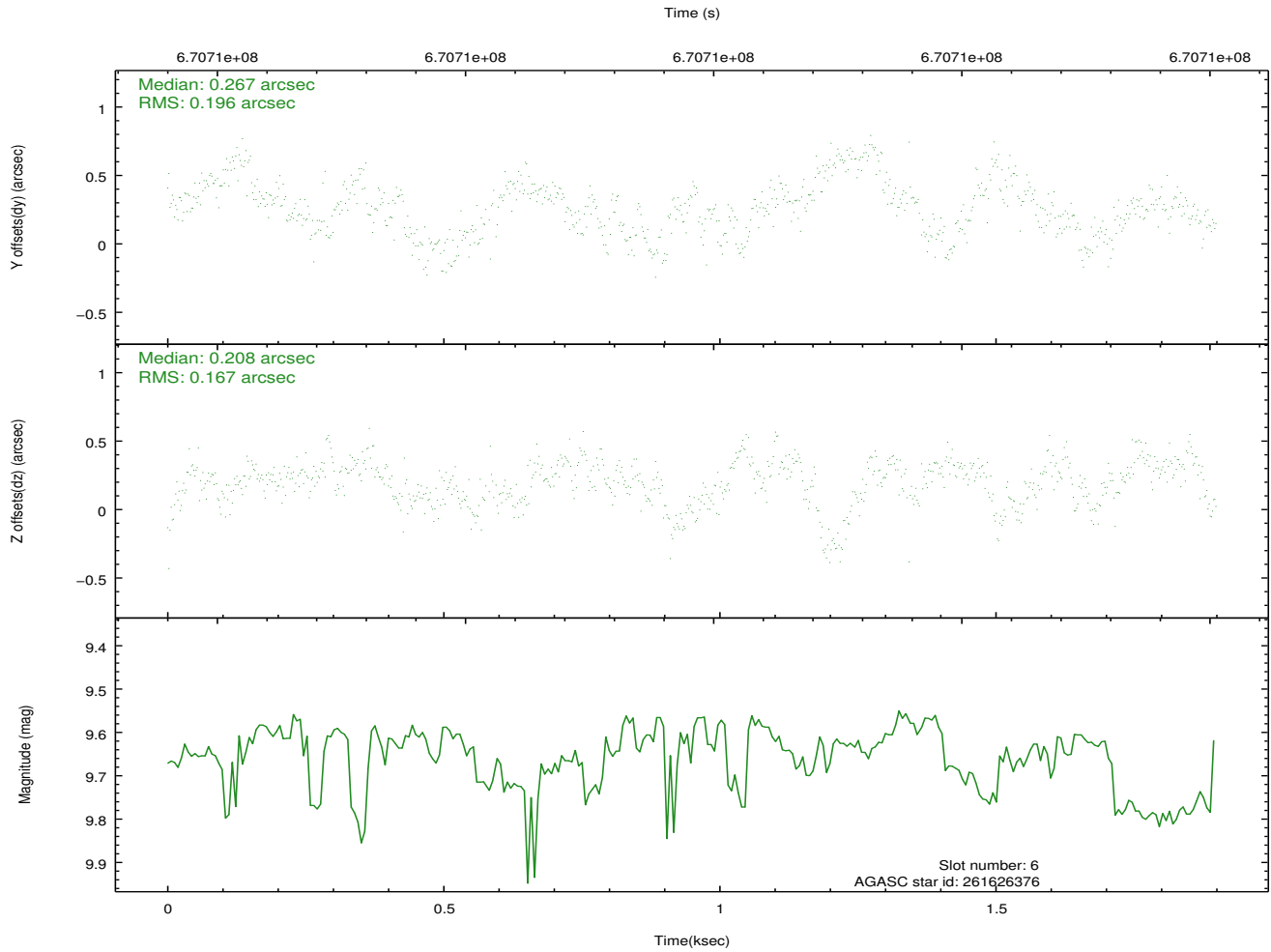
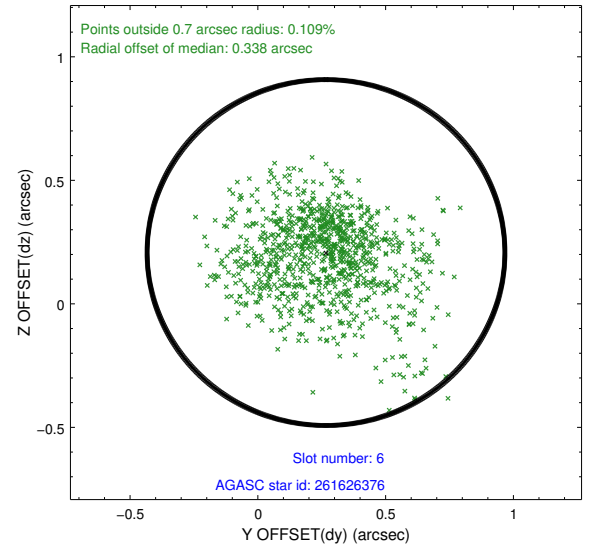
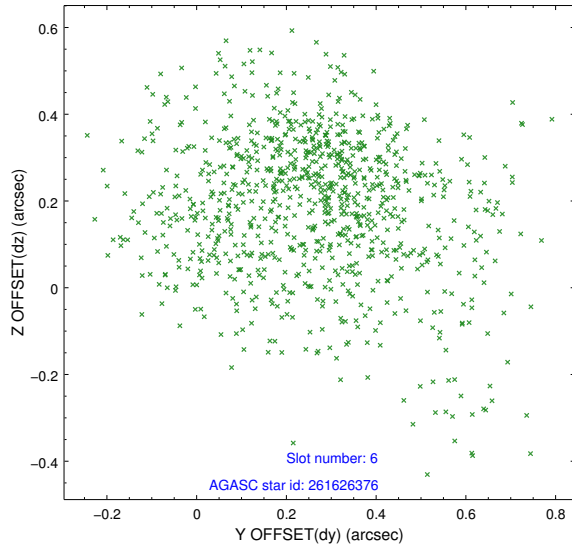
## 2.4.2 Slot 4



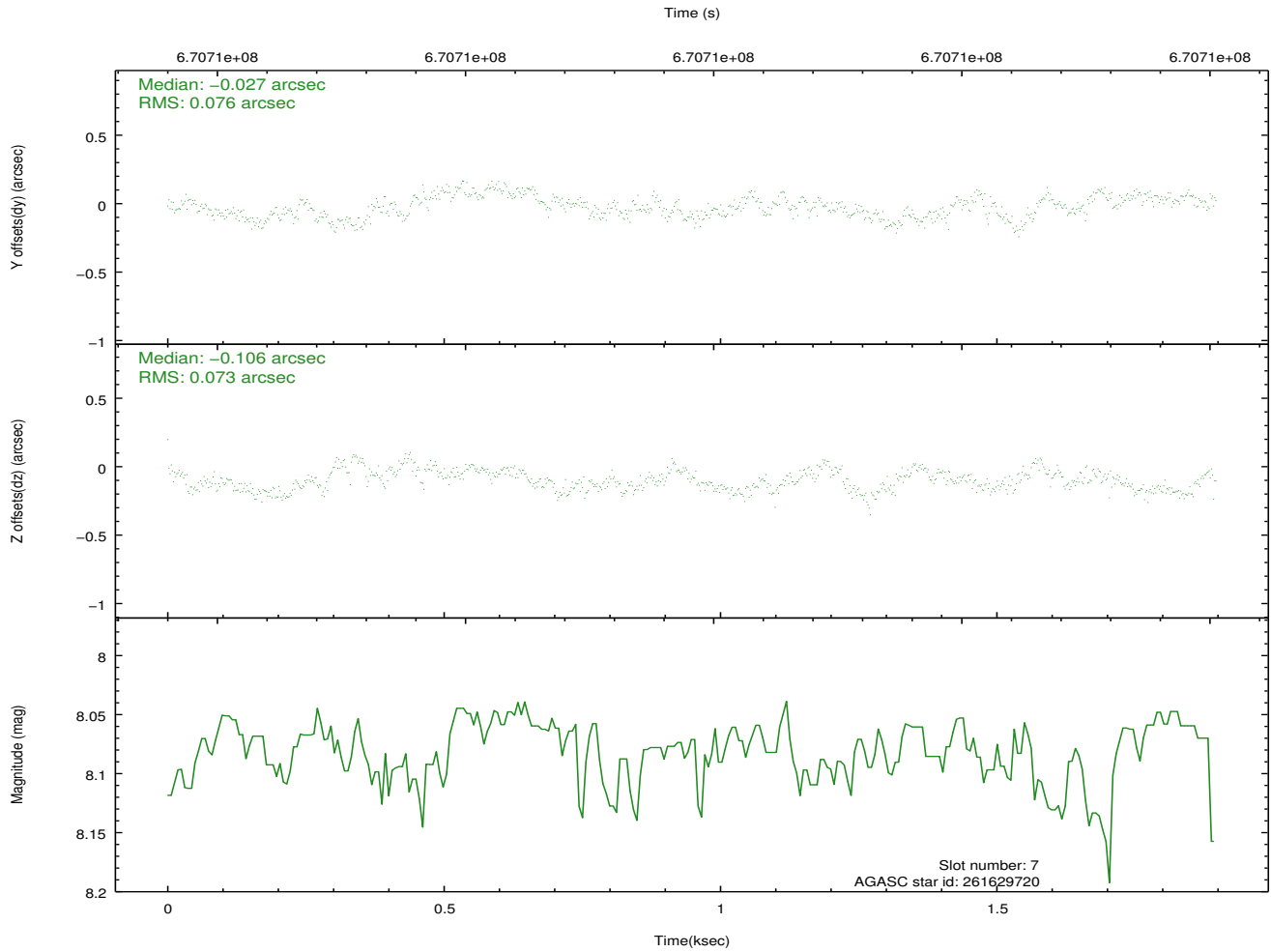
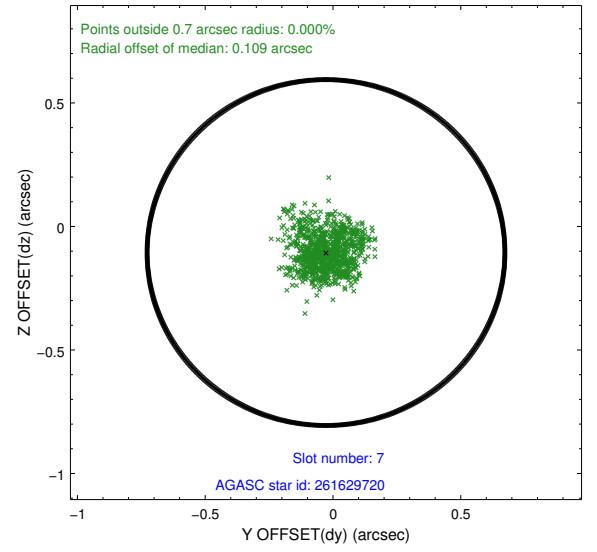
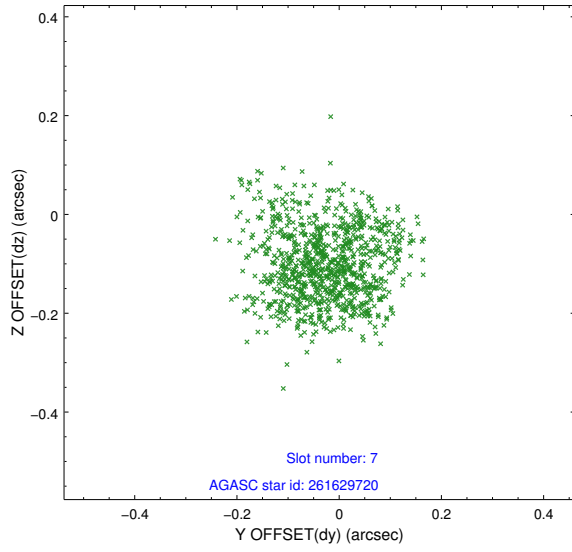
### 2.4.3 Slot 5



## 2.4.4 Slot 6

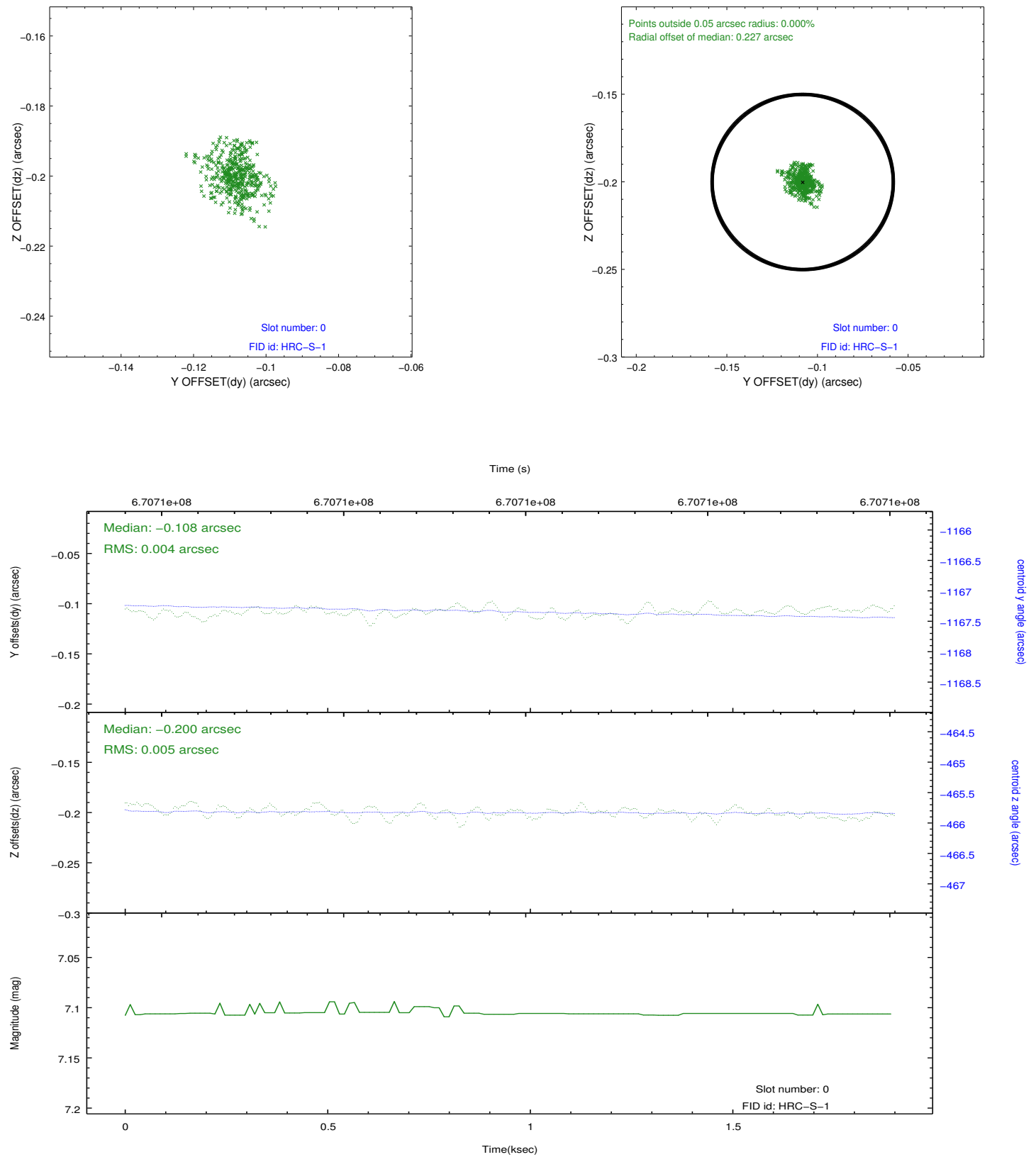


## 2.4.5 Slot 7

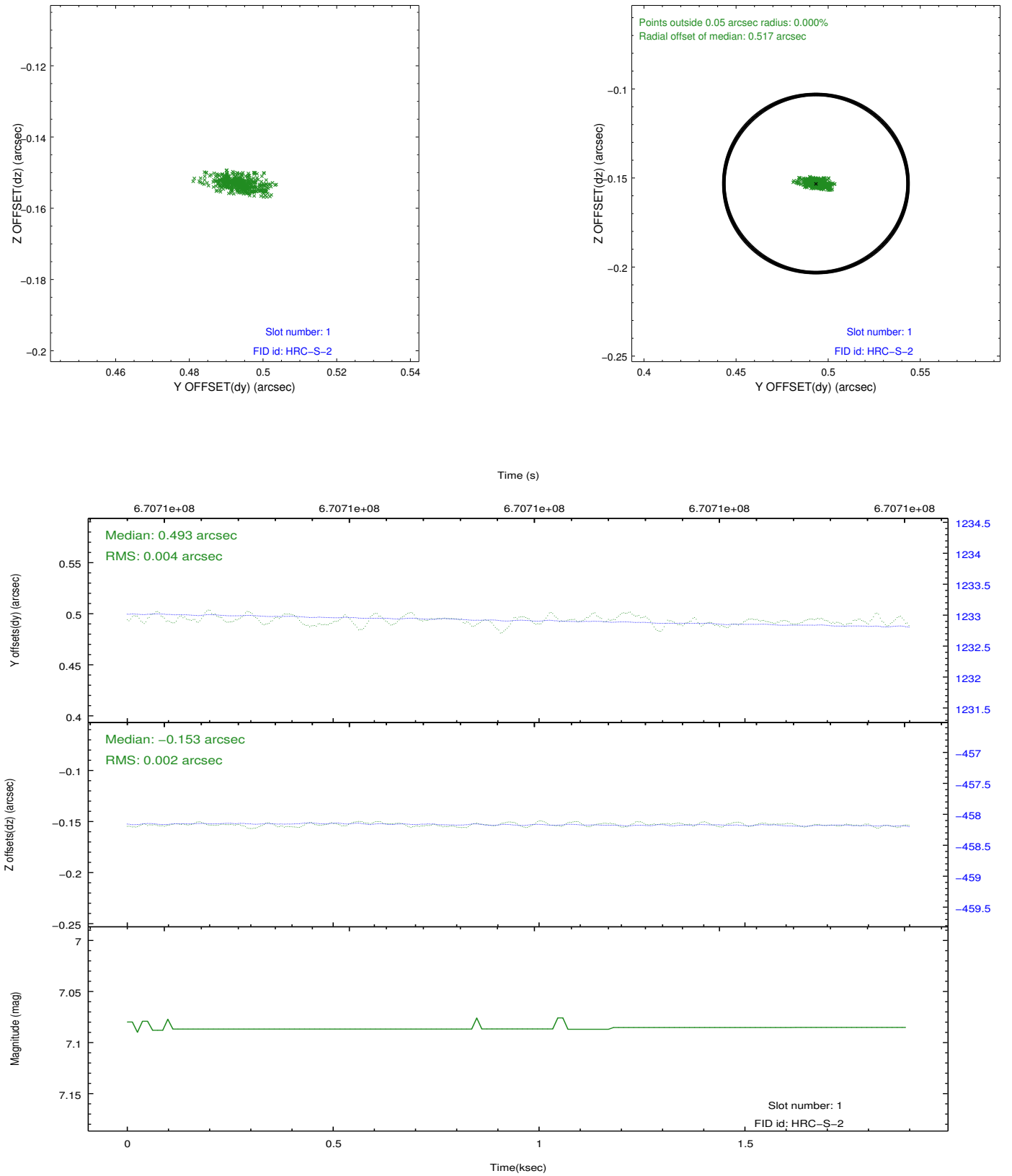


## 2.5 FID Slots

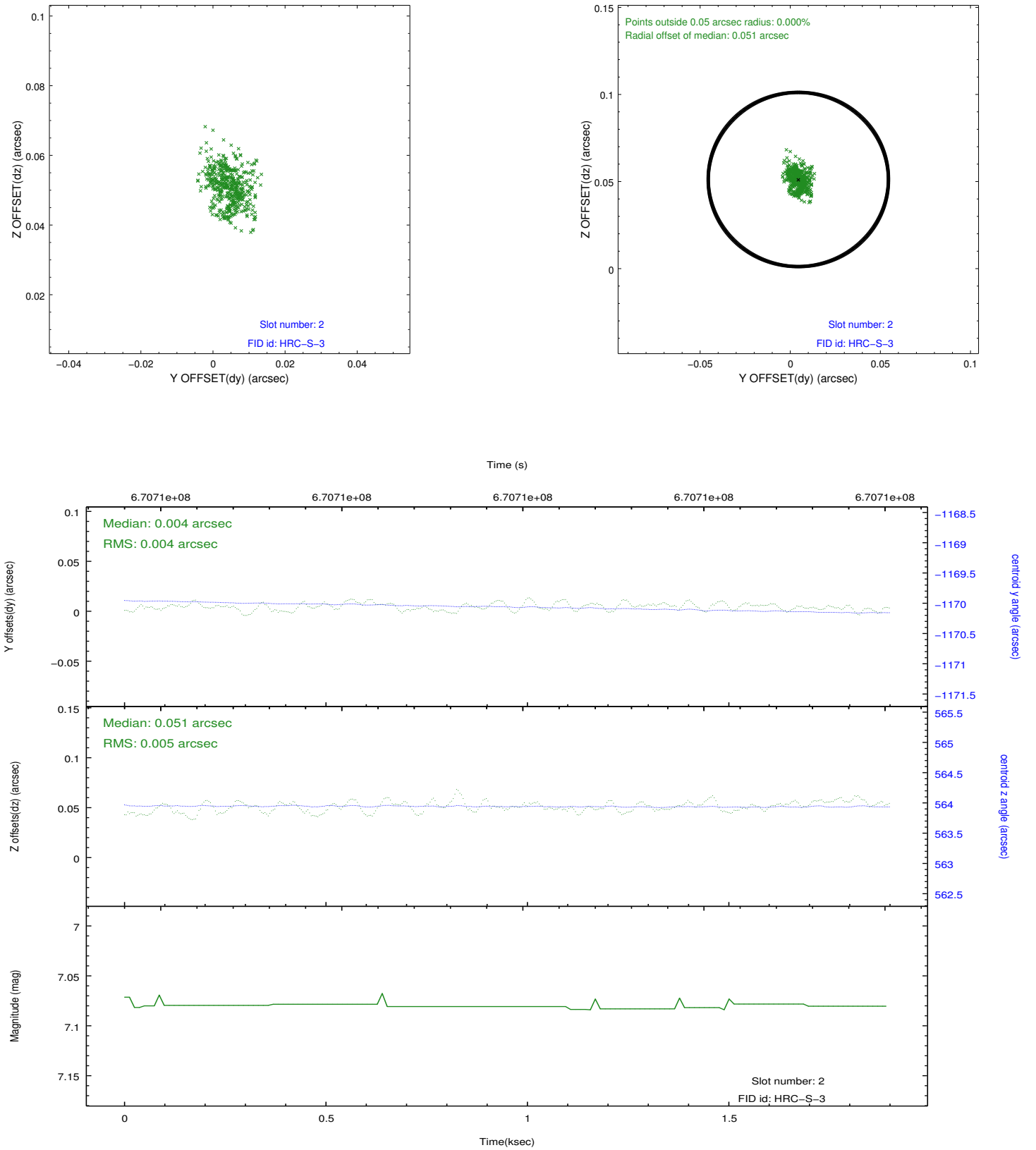
### 2.5.1 Slot 0



## 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	1.8811313624382

## 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 values, primarily in the first half of the observation. 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.