

# V&V Reference Report

## L2 ASCDS Version : 10.9.1

Observation 6231 - L2 Version 5  
Chandra X-Ray Center

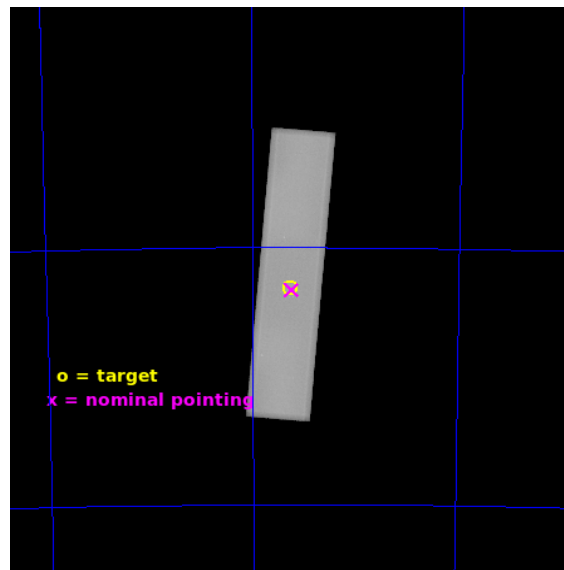
L2 Processing Date : Oct 12 2020

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# 1 Front

seq_num	500535	Sequence number
obs_id	6231	Observation id
title	Search for Sub-Millisecond Pulsars in 47 Tuc	Proposal title
observer	Prof. Robert Rutledge	Principal investigator
object	47 Tuc	Source name
ra_targ	6.021667	Observer's specified target RA [deg]
dec_targ	-72.080528	Observer's specified target Dec [deg]
ra_nom	6.0099651217583	Nominal RA [deg]
dec_nom	-72.082906390177	Nominal Dec [deg]
roll_nom	274.84429732237	Nominal Roll [deg]
revision	5	Processing version of data
ontime	47147.183433235	[s]
livetime	46894.199173792	Ontime multiplied by DTCOR
l2events	2533688	Number of level 2 events

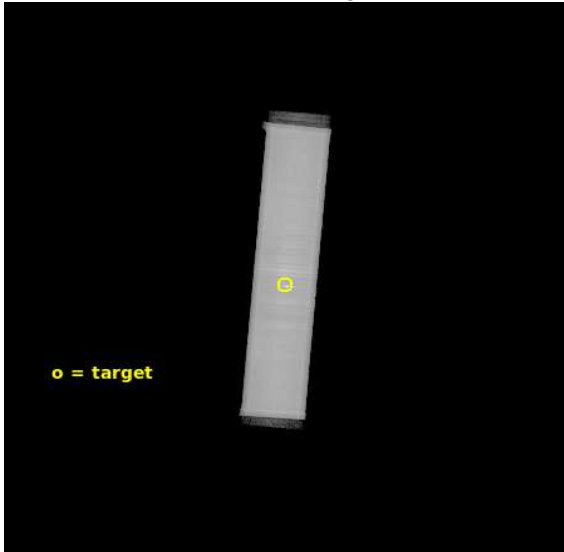


## 2 OBI

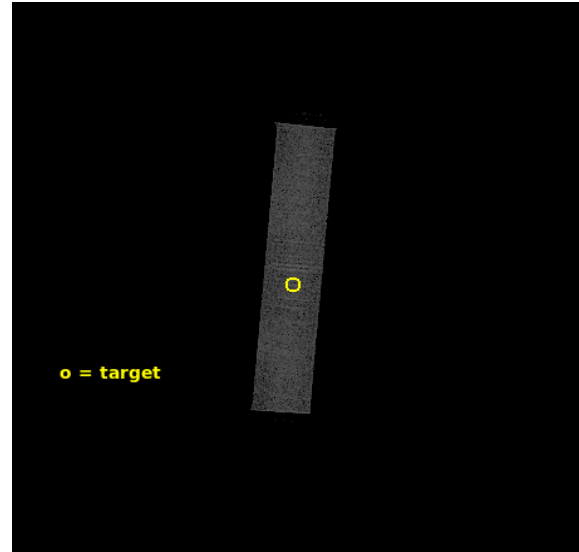
### 2.1 OBI

#### 2.1.1 Images

Level 1 Image



Level 1 Bad Events



### 2.1.2 Parameters

obi_num	0	Obi number	sched_exp_time	47000.000000	[s] Scheduled observation exposure time
ascdsver	10.9.1	Processing system revision	ontime	47147.183433235	[s]
caldbver	4.9.2	&#160	l1events	3638947	Number of level 1 events
date	2020-10-12T07:33:48	Date and time of file creation			
revision	5	Processing version of data			

### 2.1.3 Events

Level 1 Events

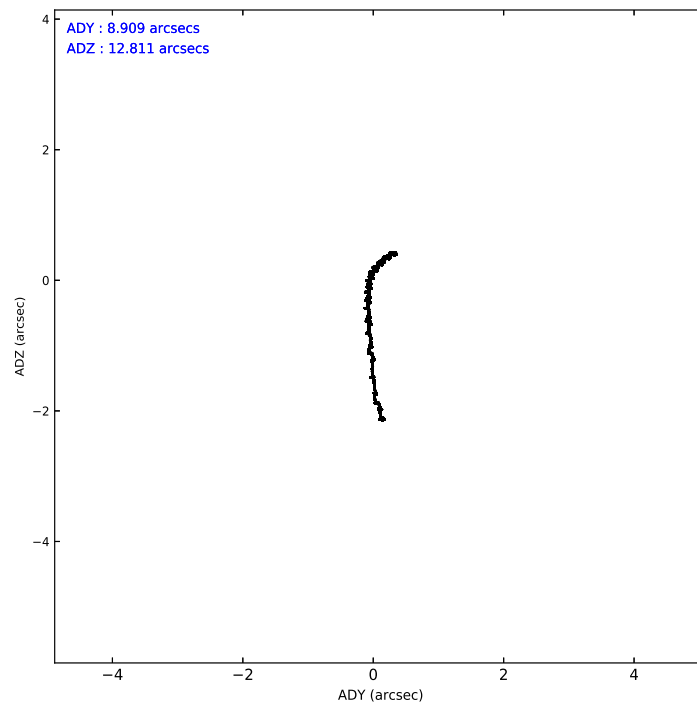
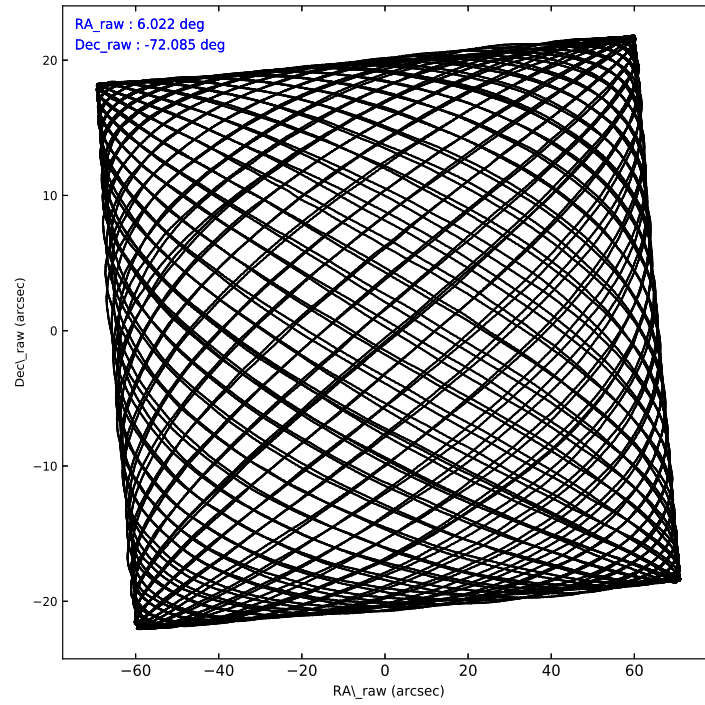
	segment 1	segment 2	segment 3
level 1 events	4275	3633349	1323
rejected events	154	192856	58
rejected %	3%	5%	4%

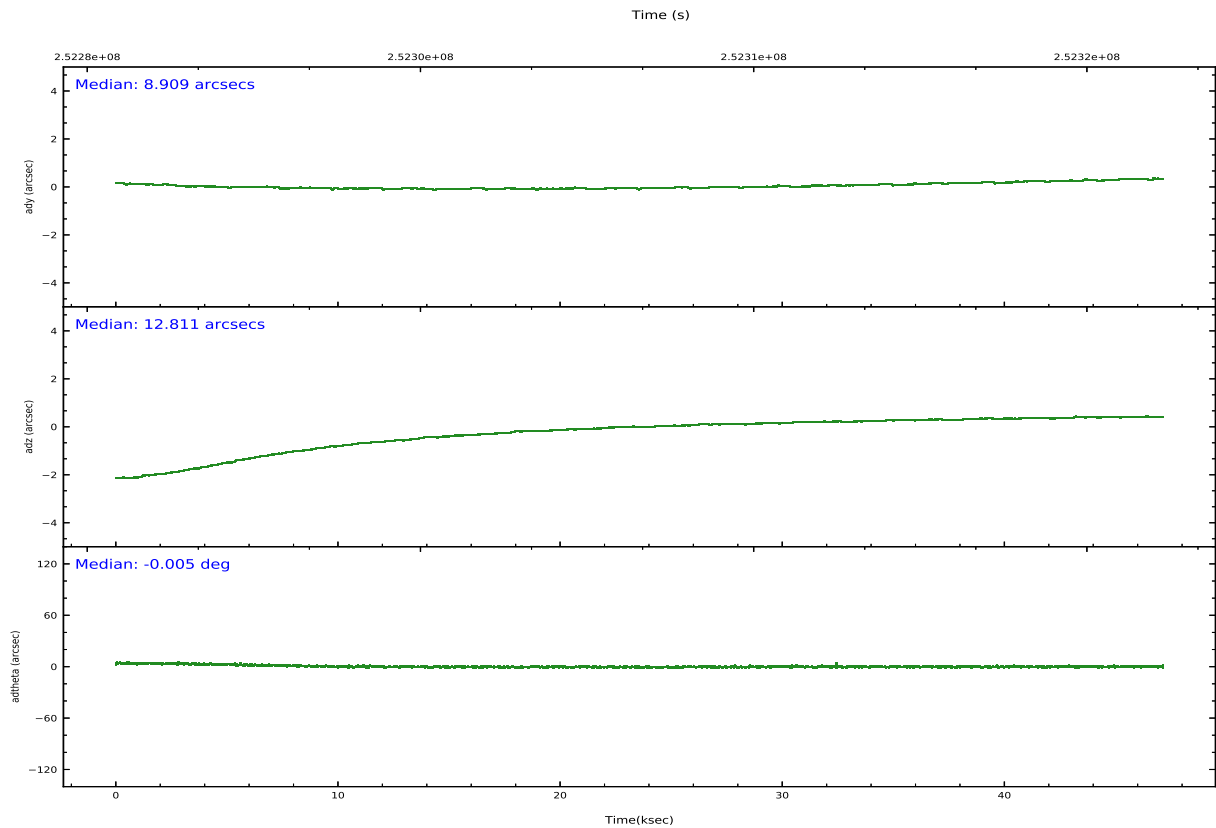
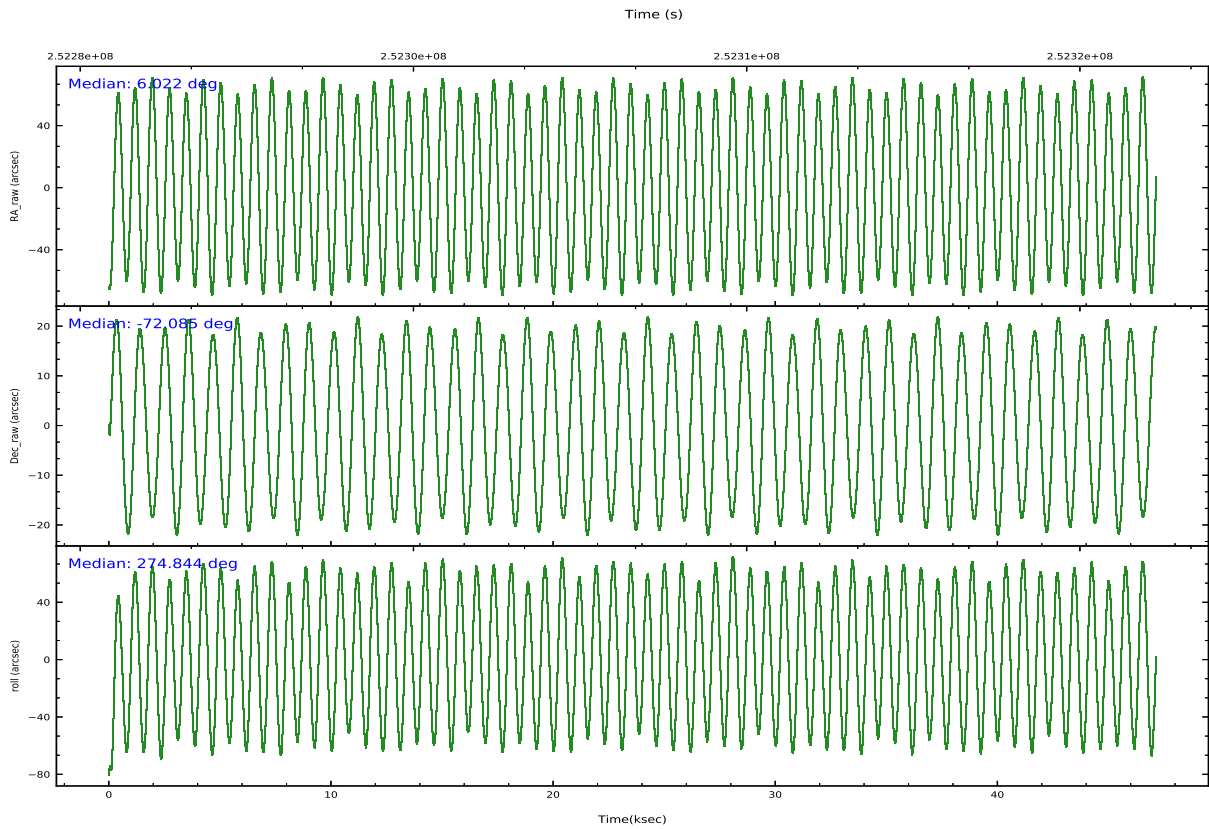
## 2.2 Compared Parameters

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	5.965743	6.0099651217583
[deg] Pointing Dec	-72.062563	-72.082906390177
[deg] Pointing Roll	274.727104	274.84429732237
[mm] SIM focus pos	-1.533336	-1.526339935833849
[mm] SIM defocus	7.710433287538843e-07	0.006996703570447904
[mm] SIM translation stage pos	250.455976	250.4635187648994
[mm] SIM translation stage offset	0	-0.007540371344731511
[s] Observation start time (MET)	252281433.184000	252280287.48259
Observation start date	2005-12-29T22:09:29	2005-12-29T21:51:27
[s] Observation end time (MET)	252328433.184000	252329351.15986
Observation end date	2005-12-30T11:12:49	2005-12-30T11:29:11

Parameter	Planned	Actual
Obspar version number	8	8
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

## 2.3 Aspect



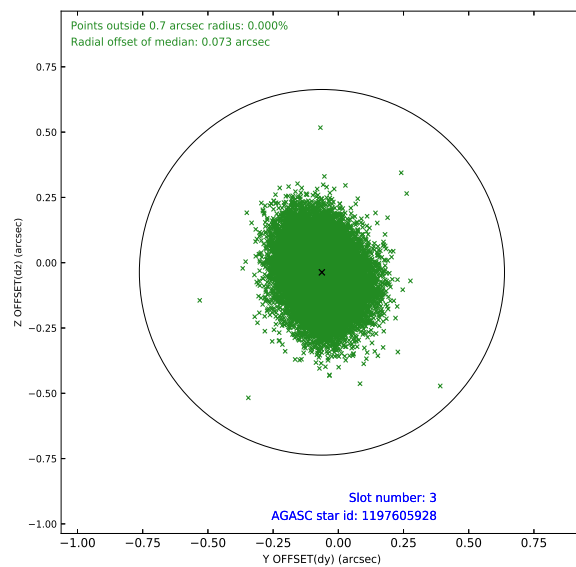
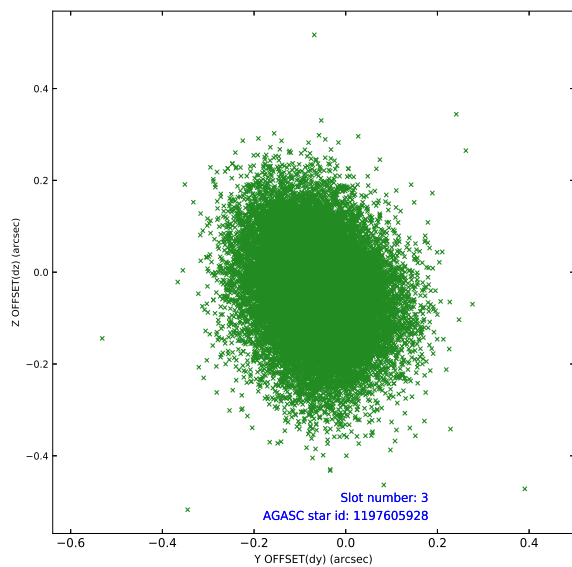


### Slot Statistics

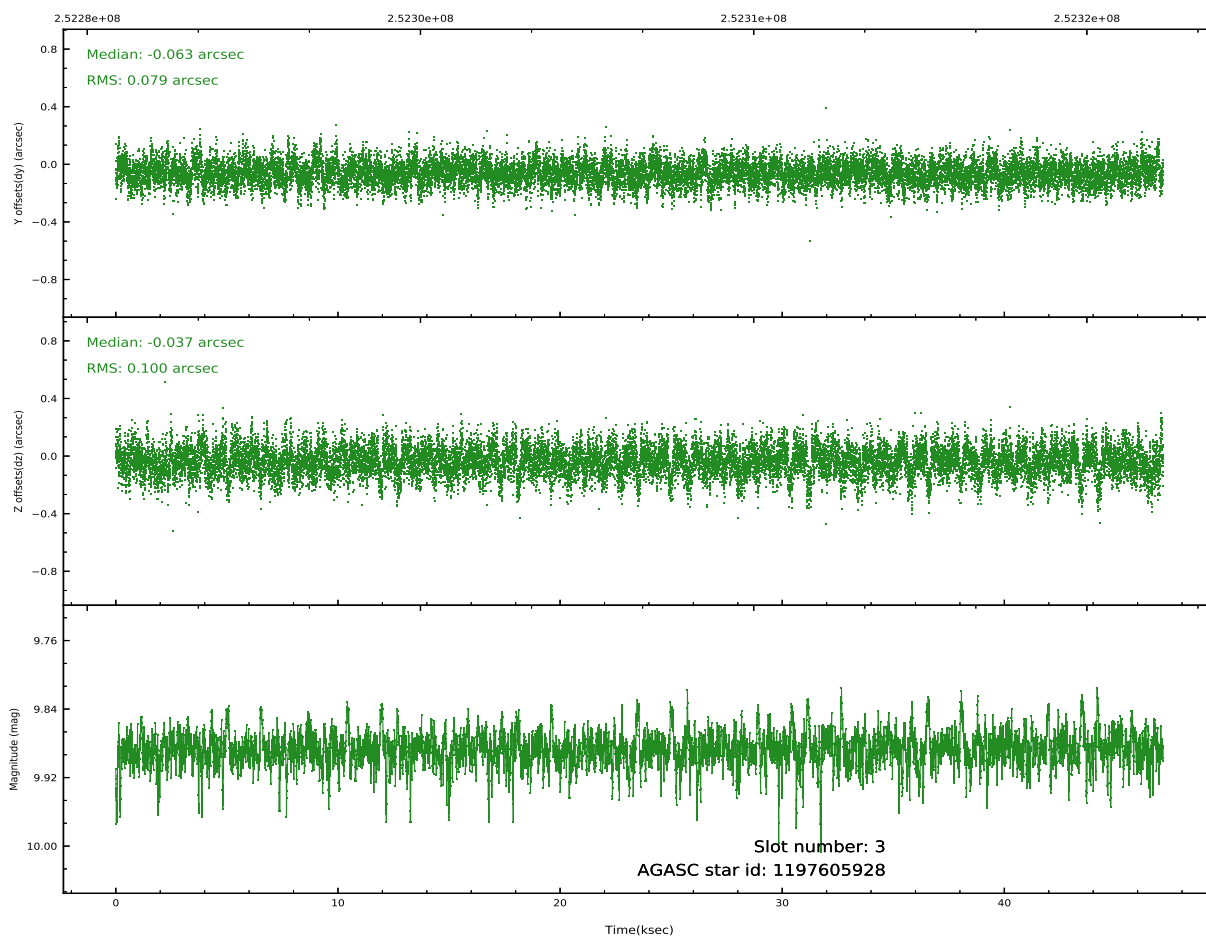
slot	status	used	id	mag	n_pts	frac_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mea
0	FID		HRC-S-1	7.01	11500	1.000	0.115	-0.143	0.012	0.046	0.000000	0.000000	-1163.13	-461
1	FID		HRC-S-2	7.01	11500	1.000	0.162	-0.108	0.007	0.014	0.000000	0.000000	1236.47	-453
2	FID		HRC-S-3	7.02	11500	1.000	0.112	-0.051	0.012	0.051	0.000000	0.000000	-1165.78	568
3	GUIDE	used	1197605928	9.89	22972	1.000	-0.063	-0.037	0.135	0.225	4.361277	-72.423732	1176.11	-1846
4	GUIDE	used	1197607928	9.63	22980	1.000	0.089	0.066	0.157	0.262	7.837743	-72.165759	572.56	2023
5	GUIDE	used	1197619752	10.01	22975	1.000	0.023	-0.180	0.161	0.258	4.510721	-71.856694	-852.32	-1565
6	GUIDE	used	1197620848	10.03	22958	1.000	-0.039	-0.056	0.186	0.299	3.913465	-71.739620	-1309.54	-2214
7	GUIDE	used	1197617752	10.25	22948	1.000	-0.008	0.220	0.229	0.424	4.480632	-72.284129	681.58	-1688

## 2.4 Star Slots

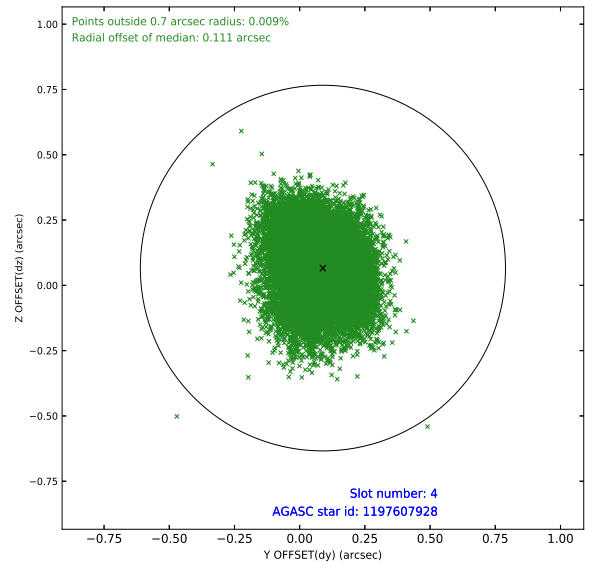
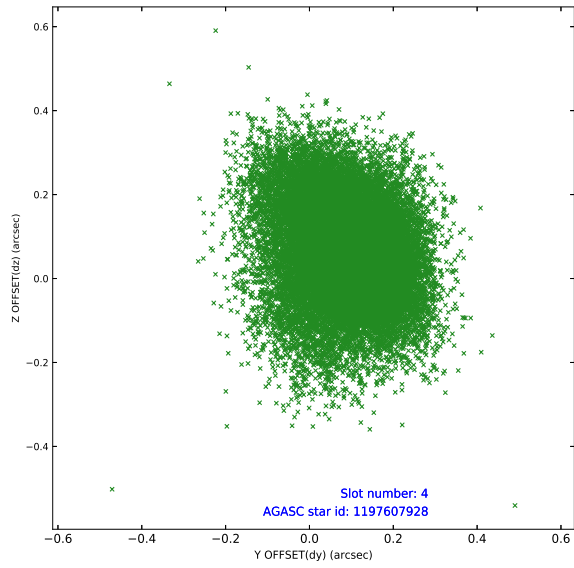
### 2.4.1 Slot 3



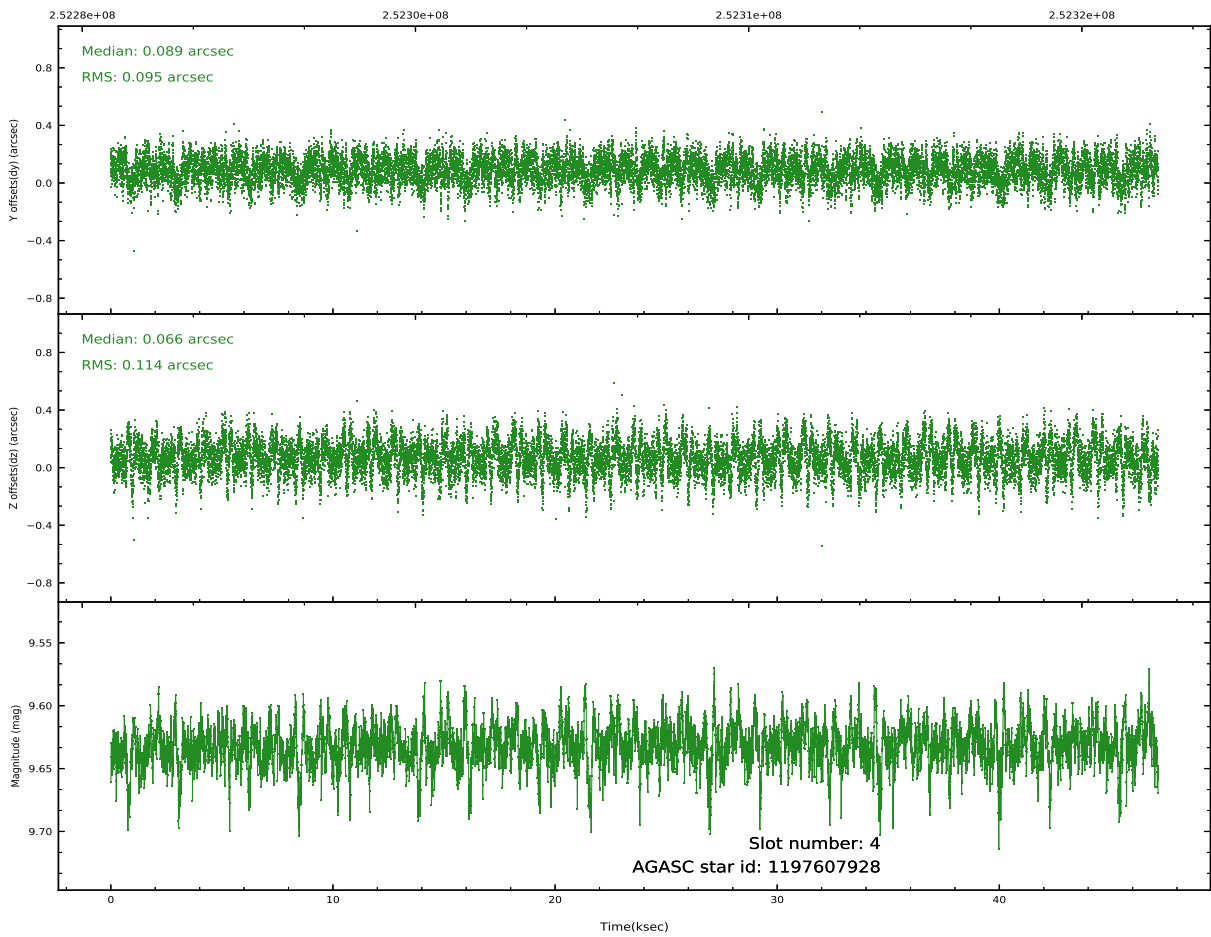
Time (s)



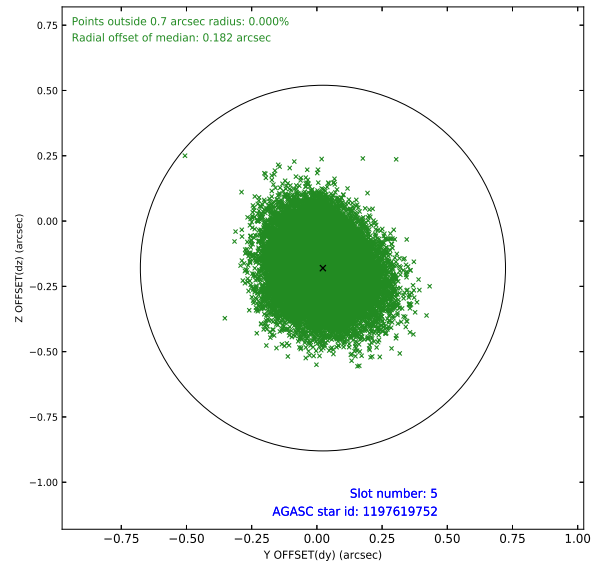
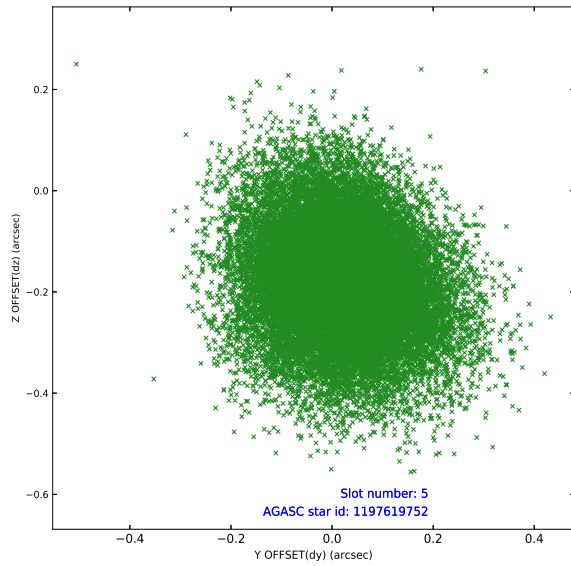
## 2.4.2 Slot 4



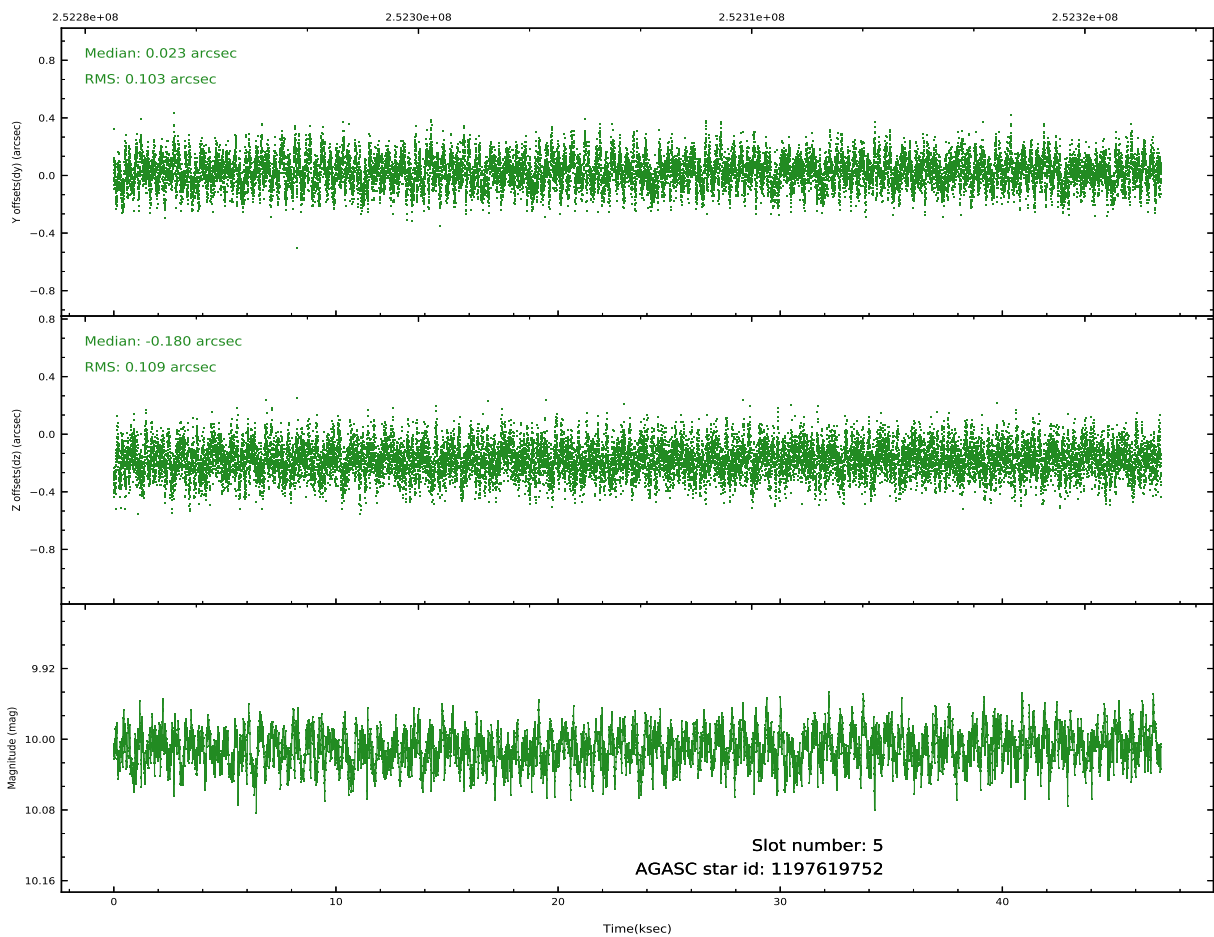
Time (s)



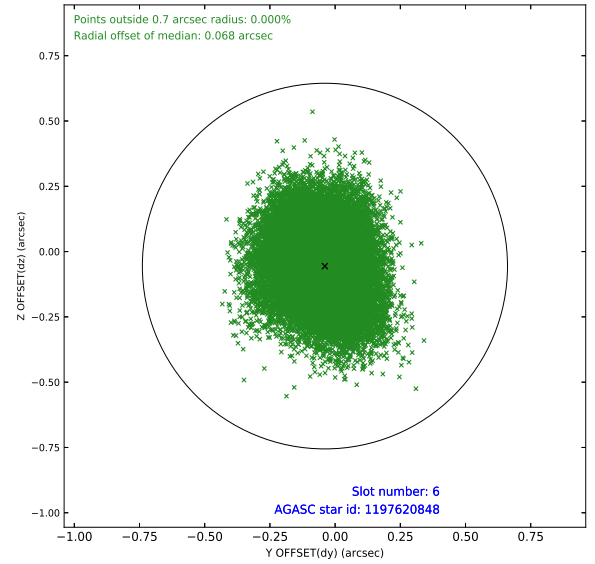
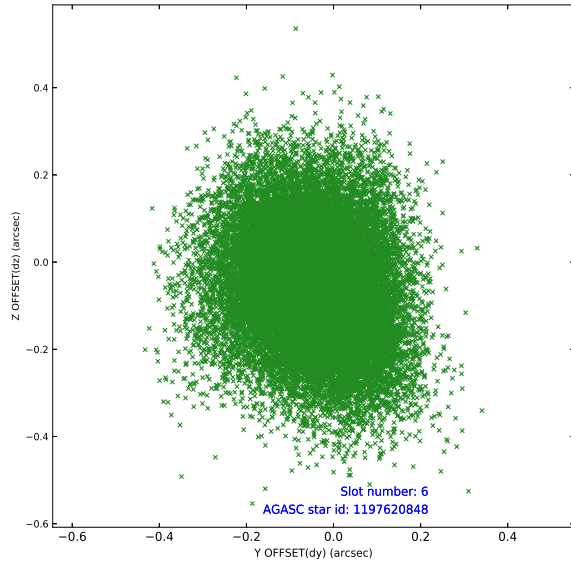
### 2.4.3 Slot 5



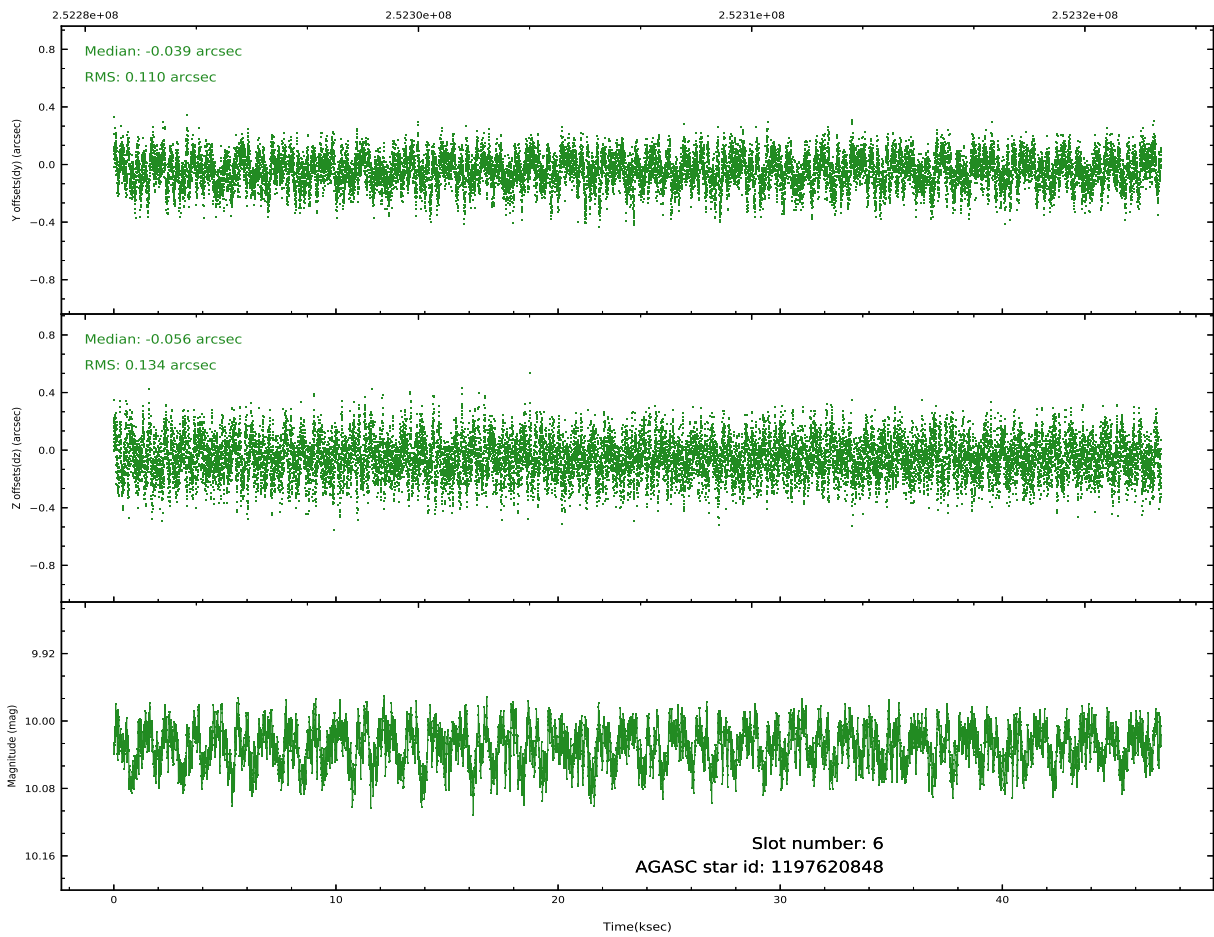
Time (s)



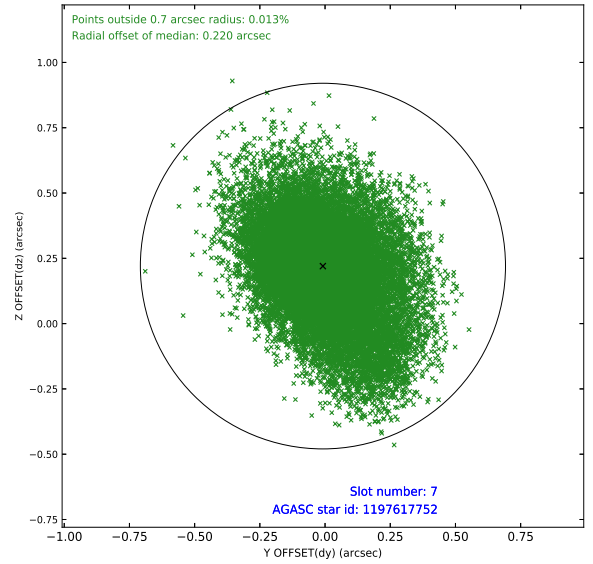
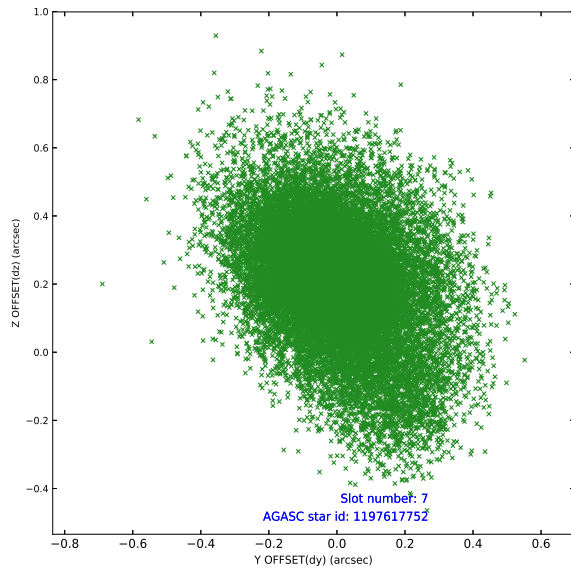
## 2.4.4 Slot 6



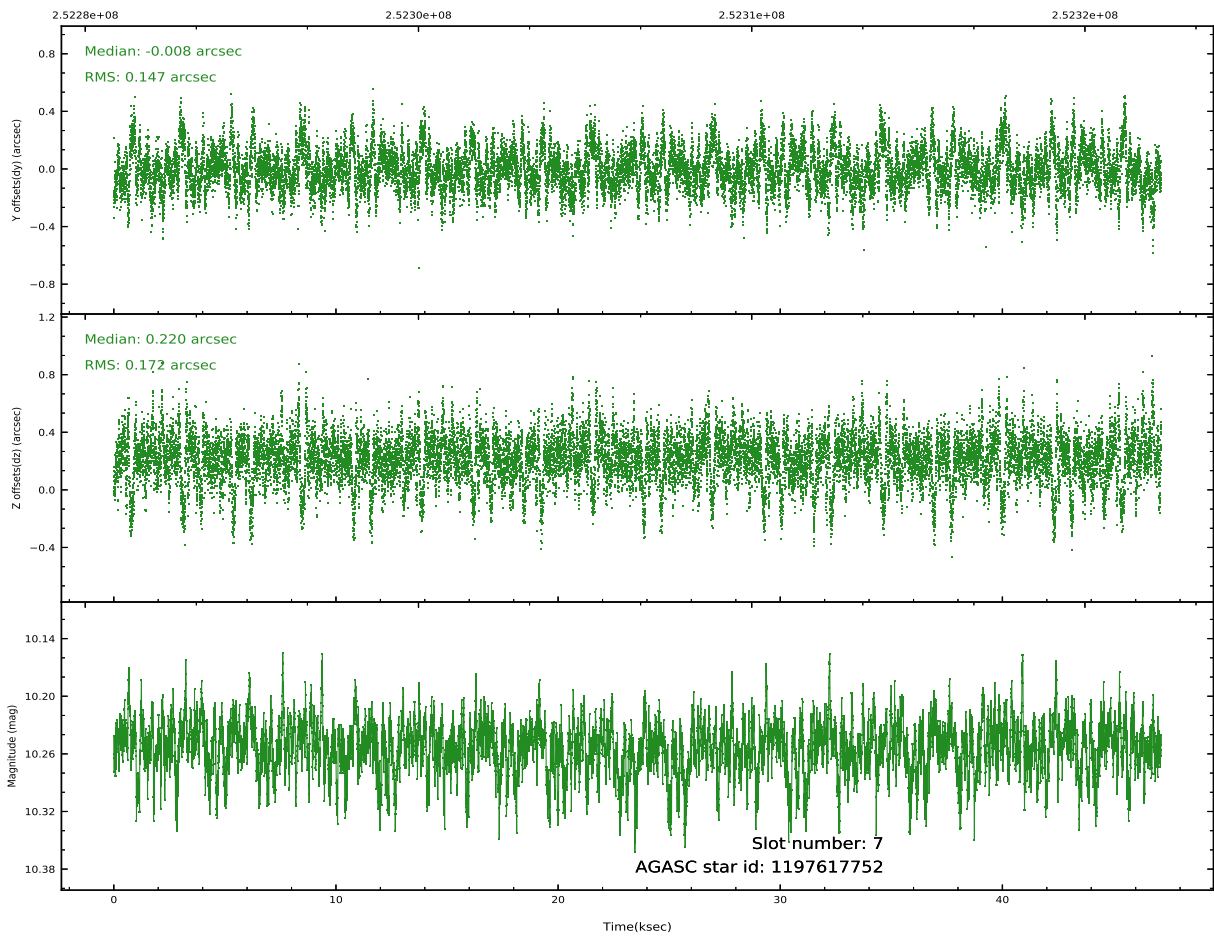
Time (s)



## 2.4.5 Slot 7

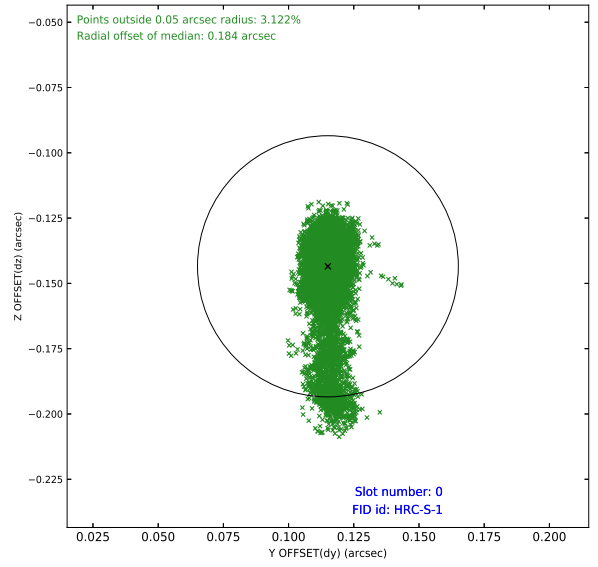
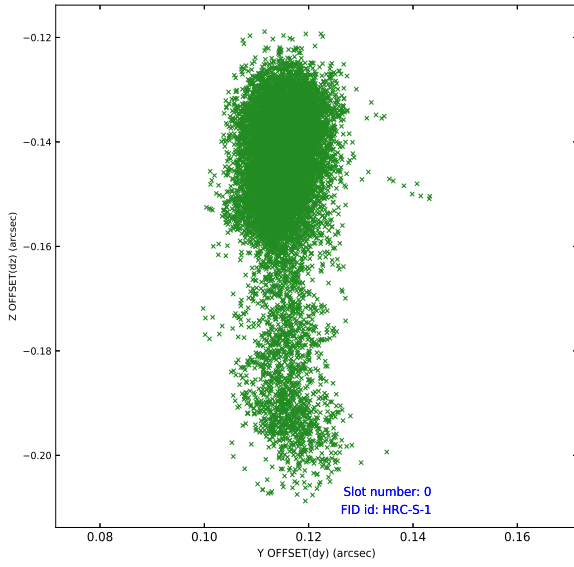


Time (s)

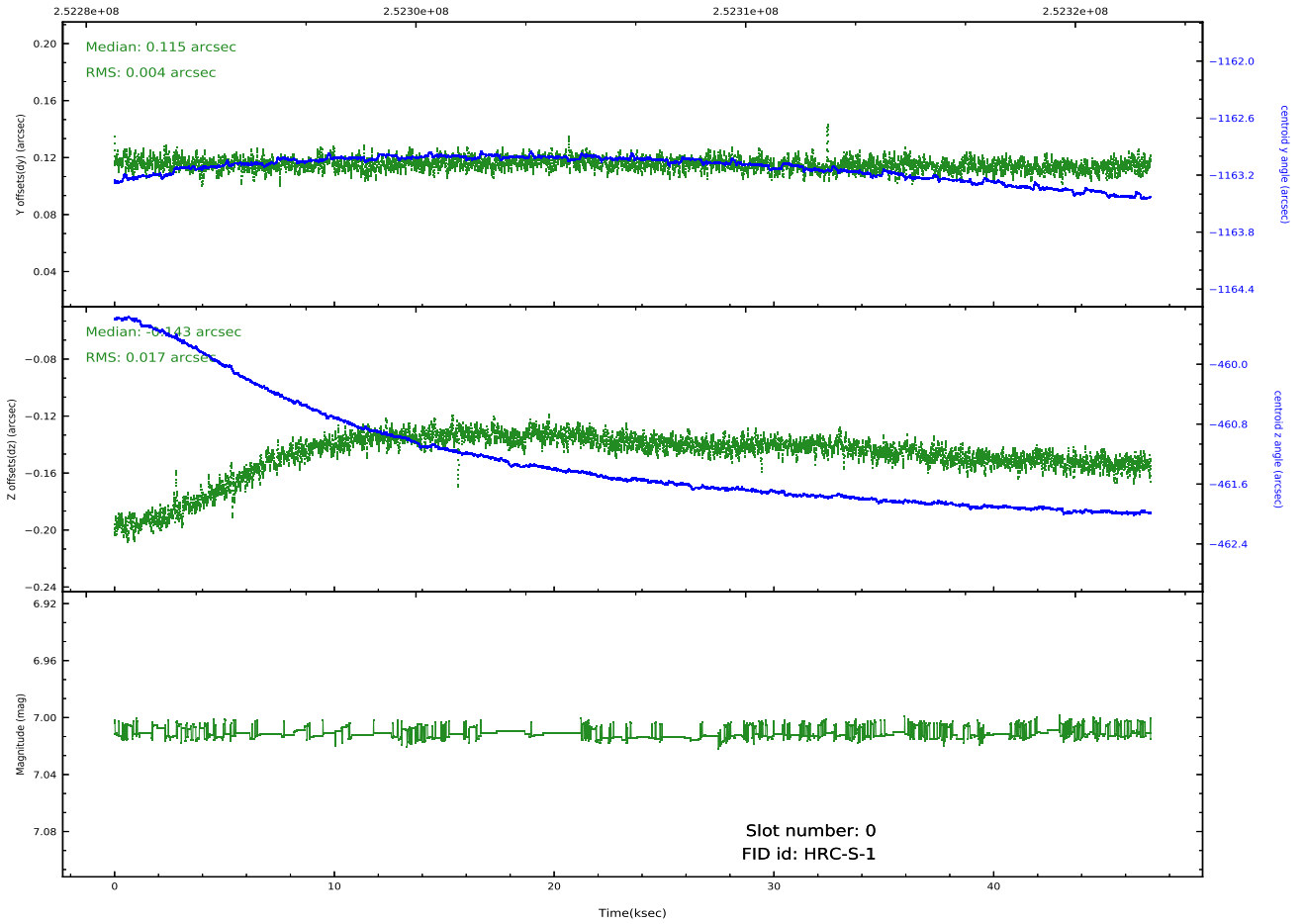


## 2.5 FID Slots

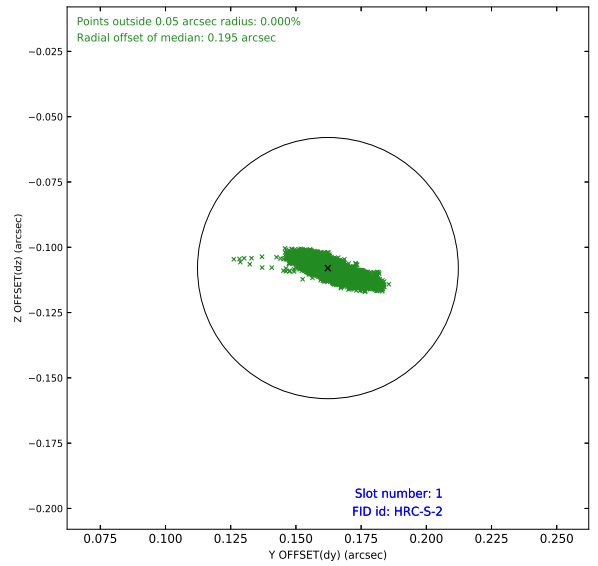
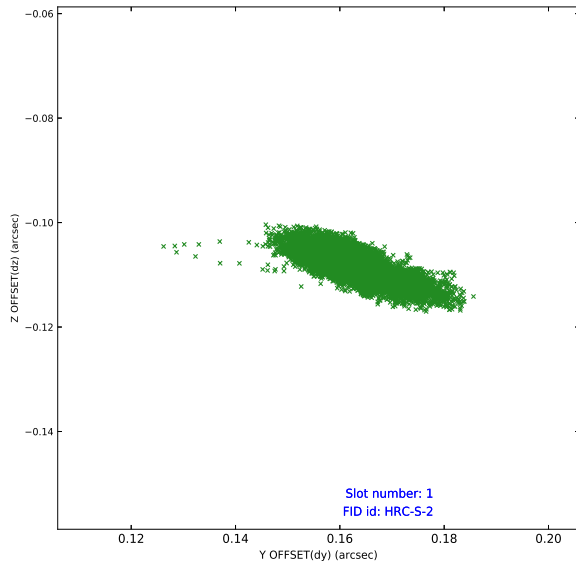
### 2.5.1 Slot 0



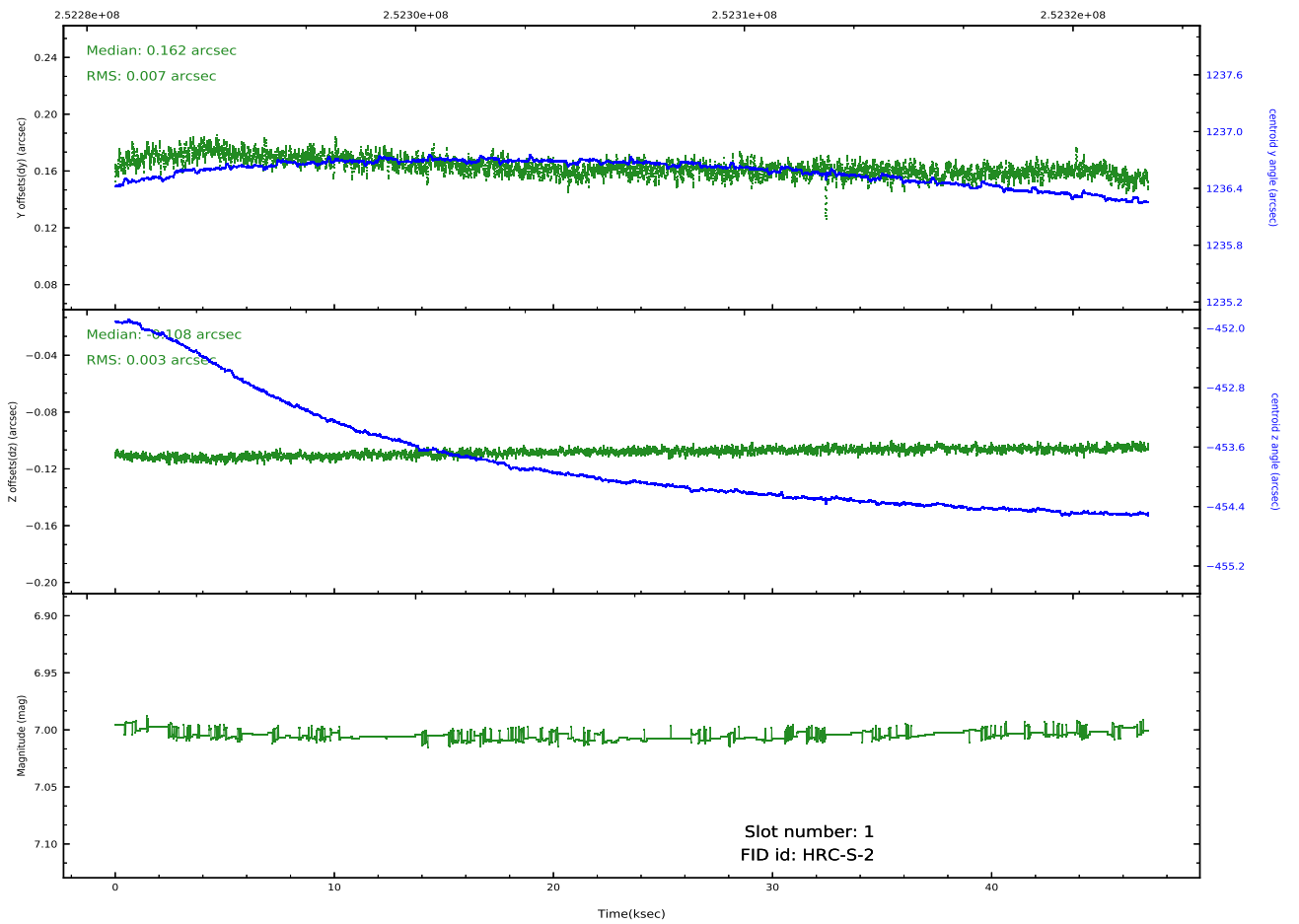
Time (s)



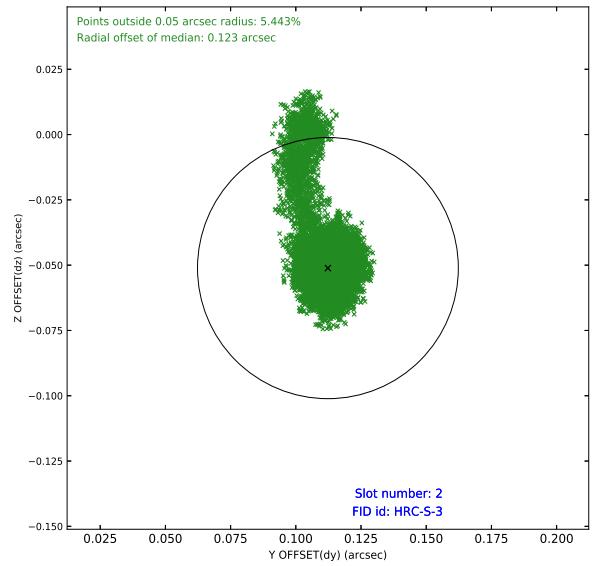
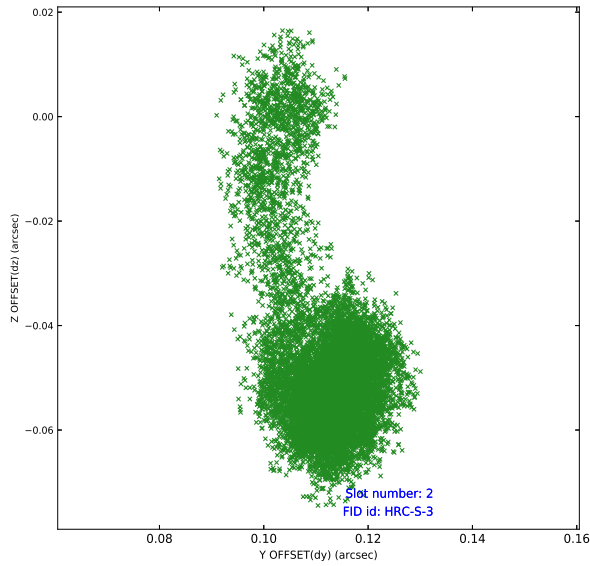
## 2.5.2 Slot 1



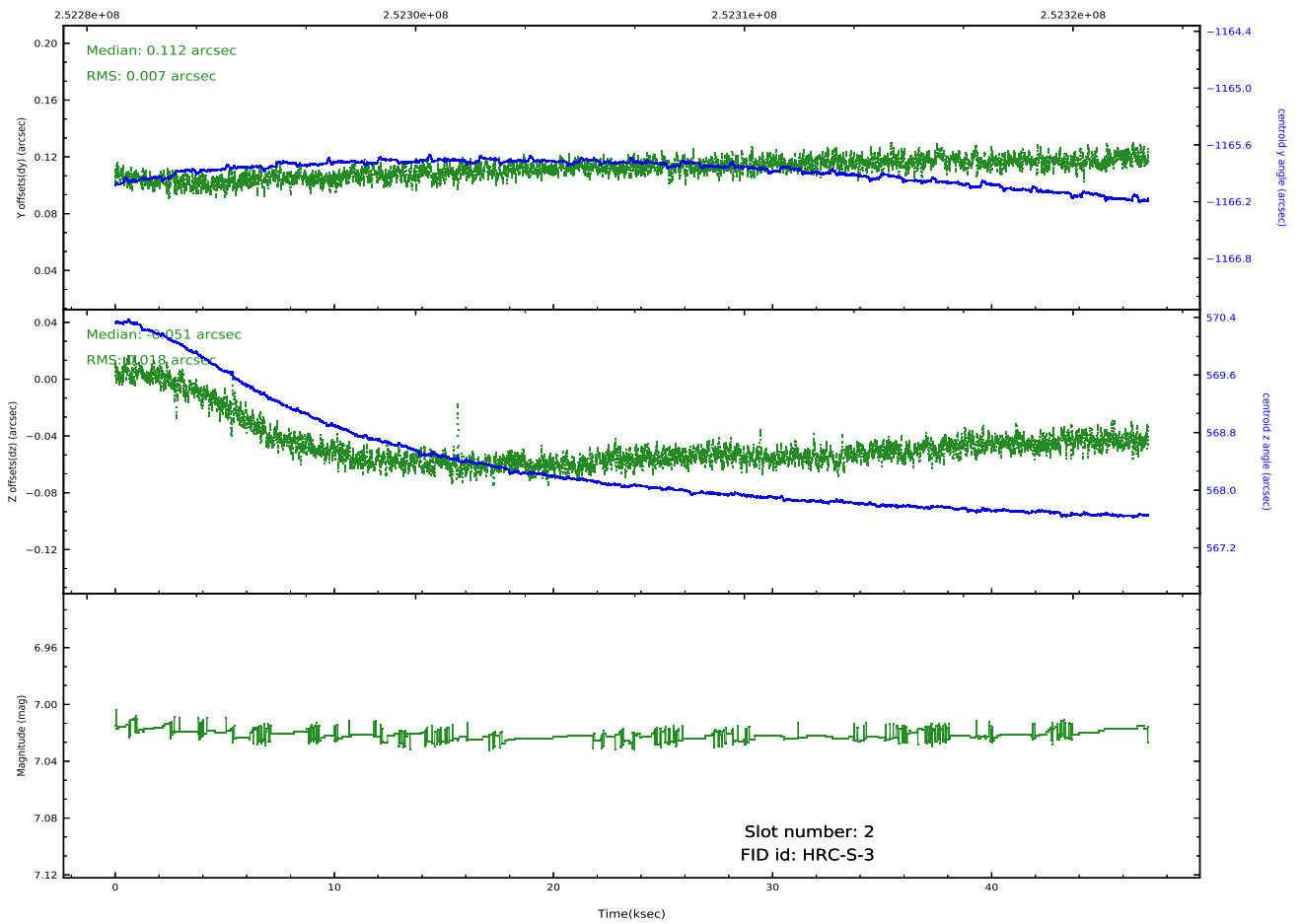
Time (s)



### 2.5.3 Slot 2



Time (s)



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2020.10.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	47.14692

## A.2 Comments