

# V&V Reference Report

## L2 ASCDS Version : 10.6

Observation 19800 - L2 Version 1  
Chandra X-Ray Center

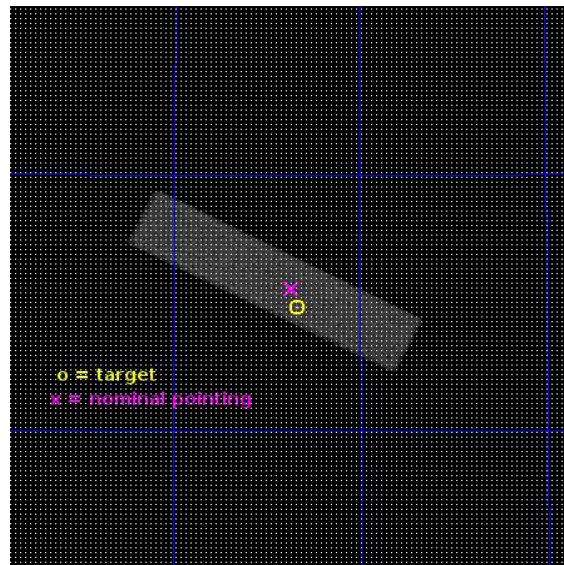
L2 Processing Date : Sep 15 2017

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Parameters . . . . .	4
2.1.3	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

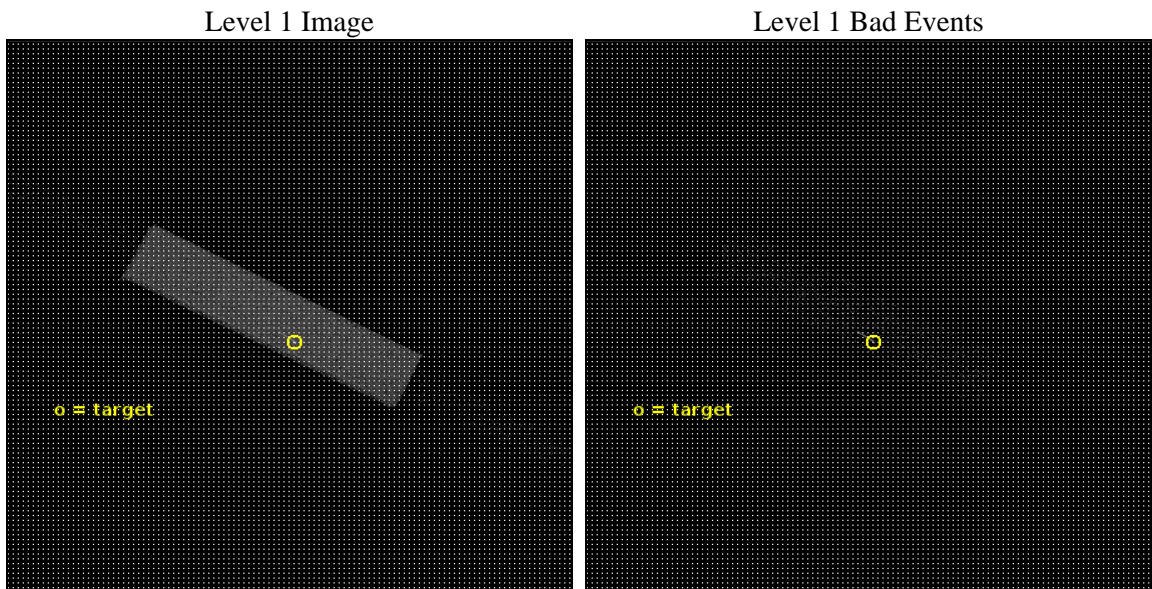
seq_num	291317	Sequence number
obs_id	19800	Observation id
title	AO-18 Calibration Observations to Monitor the Spatial Variations in the HRC-S Gain	Proposal title
observer	CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.17	Observer's specified target RA [deg]
dec_targ	45.742306	Observer's specified target Dec [deg]
ra_nom	332.18433994884	Nominal RA [deg]
dec_nom	45.778750618351	Nominal Dec [deg]
roll_nom	206.84435423599	Nominal Roll [deg]
revision	1	Processing version of data
ontime	1173.6250687838	[s]
livetime	1163.727017898	Ontime multiplied by DTCOR
l2events	78787	Number of level 2 events



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



### 2.1.2 Parameters

obi_num	1	Obi number	sched_exp_time	1000.000000	[s] Scheduled observation exposure time
ascdsver	10.6	Processing system revision	ontime	1173.6250687838	[s]
caldsver	4.7.6	&#160	l1events	118567	Number of level 1 events
date	2017-09-15T14:46:34	Date and time of file creation			
revision	1	Processing version of data			

### 2.1.3 Events

Level 1 Events

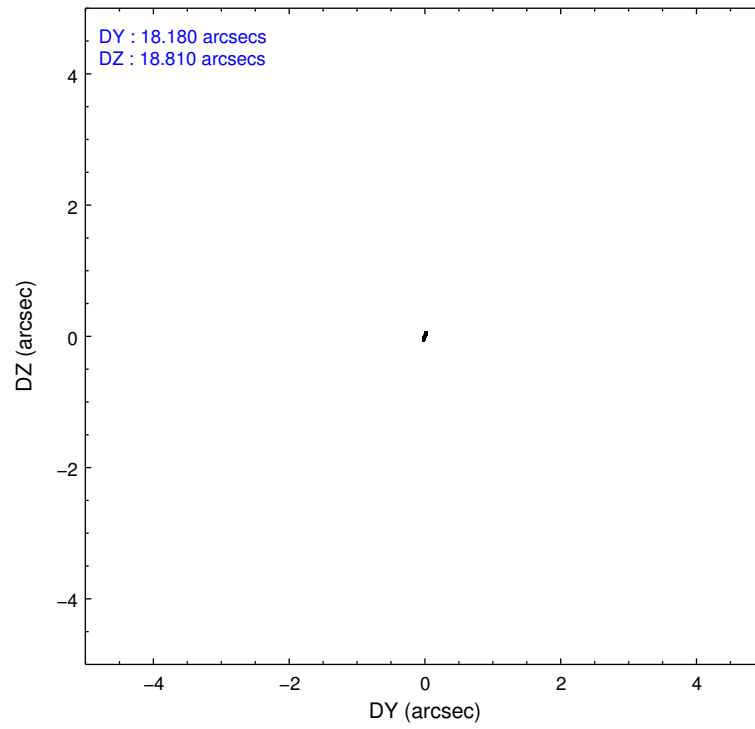
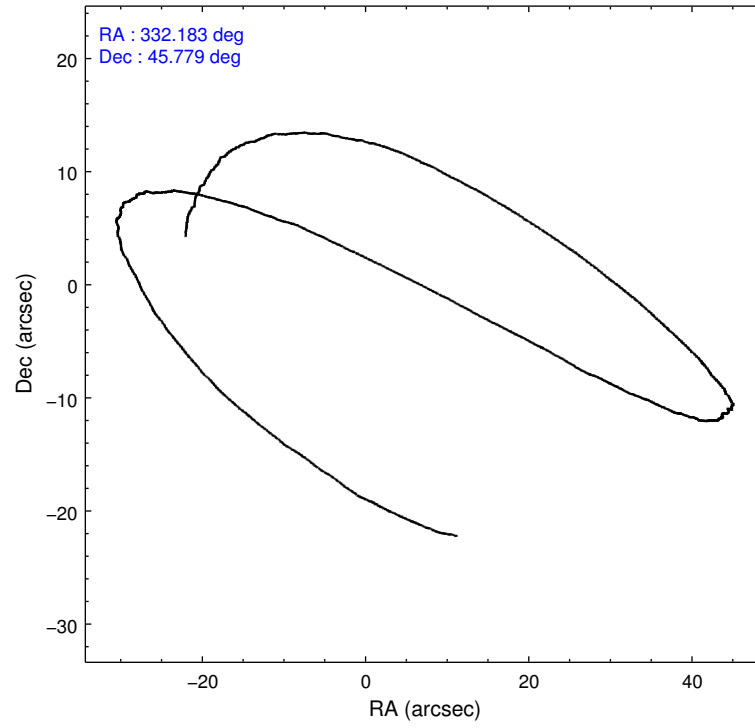
	<b>segment 1</b>	<b>segment 2</b>	<b>segment 3</b>
level 1 events	1361	116000	1206
rejected events	1361	25244	1206
rejected %	100%	21%	100%

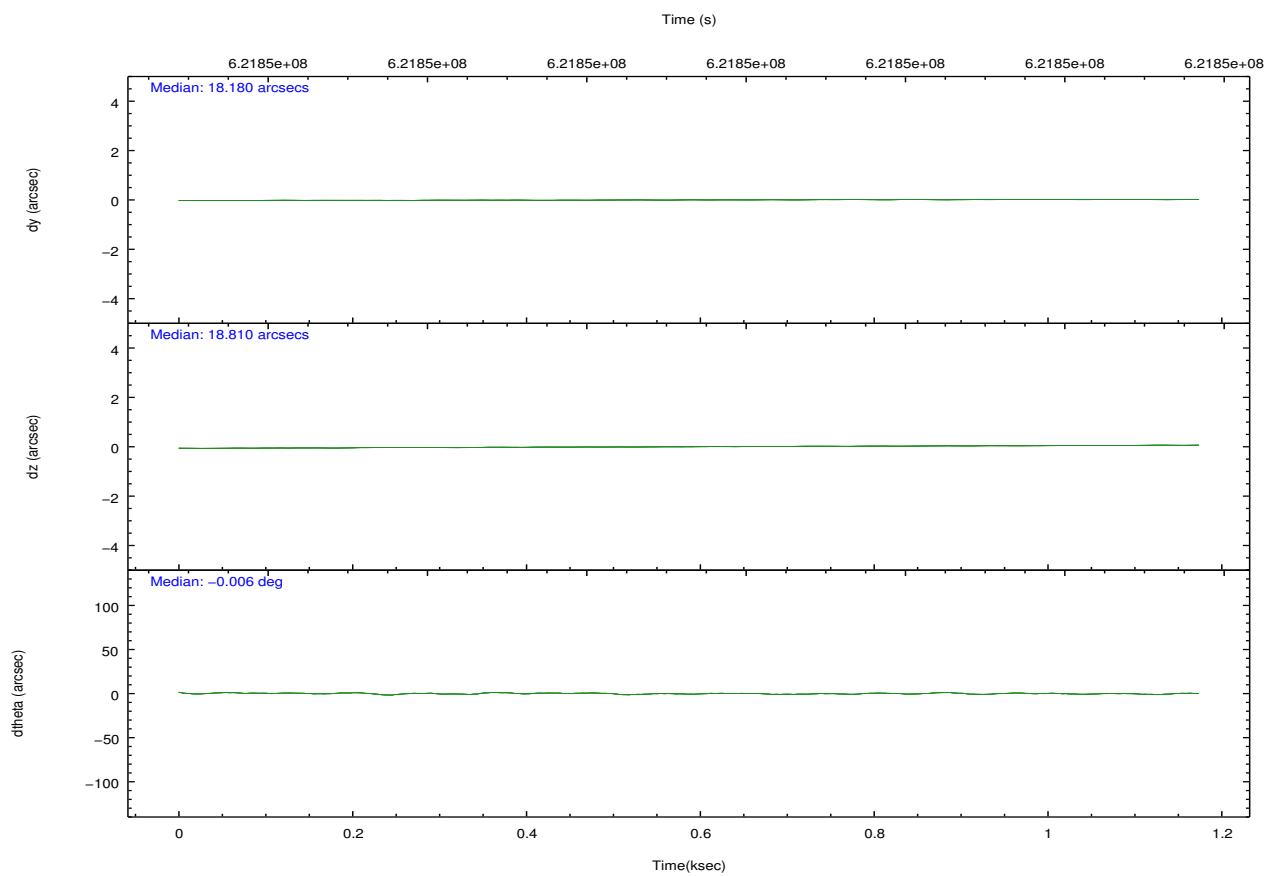
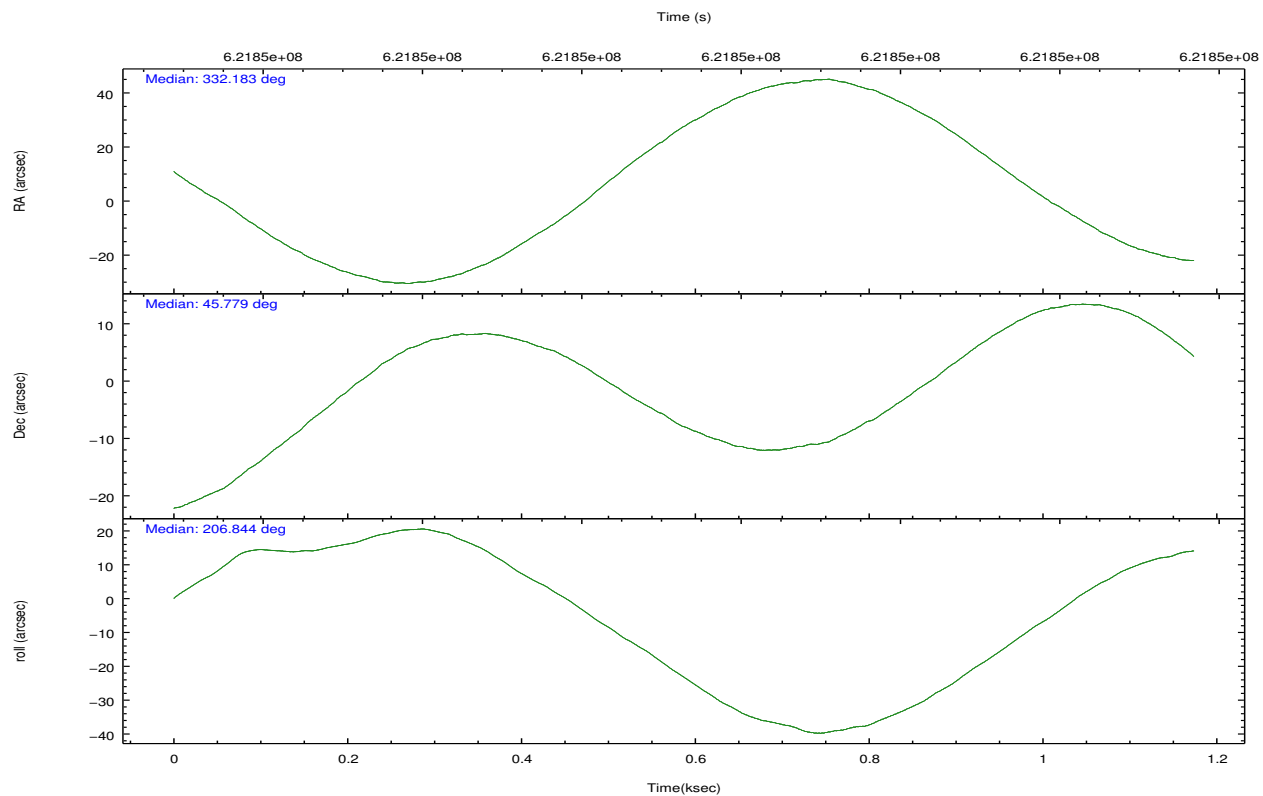
## 2.2 Compared Parameters

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	332.205927	332.1843399488425
[deg] Pointing Dec	45.803255	45.77875061835099
[deg] Pointing Roll	206.761425	206.8443542359936
[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)	621850922.184000	621850546.58143
Observation start date	2017-09-15T08:20:53	2017-09-15T08:15:46
[s] Observation end time (MET)	621851922.184000	621852056.40652
Observation end date	2017-09-15T08:37:33	2017-09-15T08:40:56

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

## 2.3 Aspect





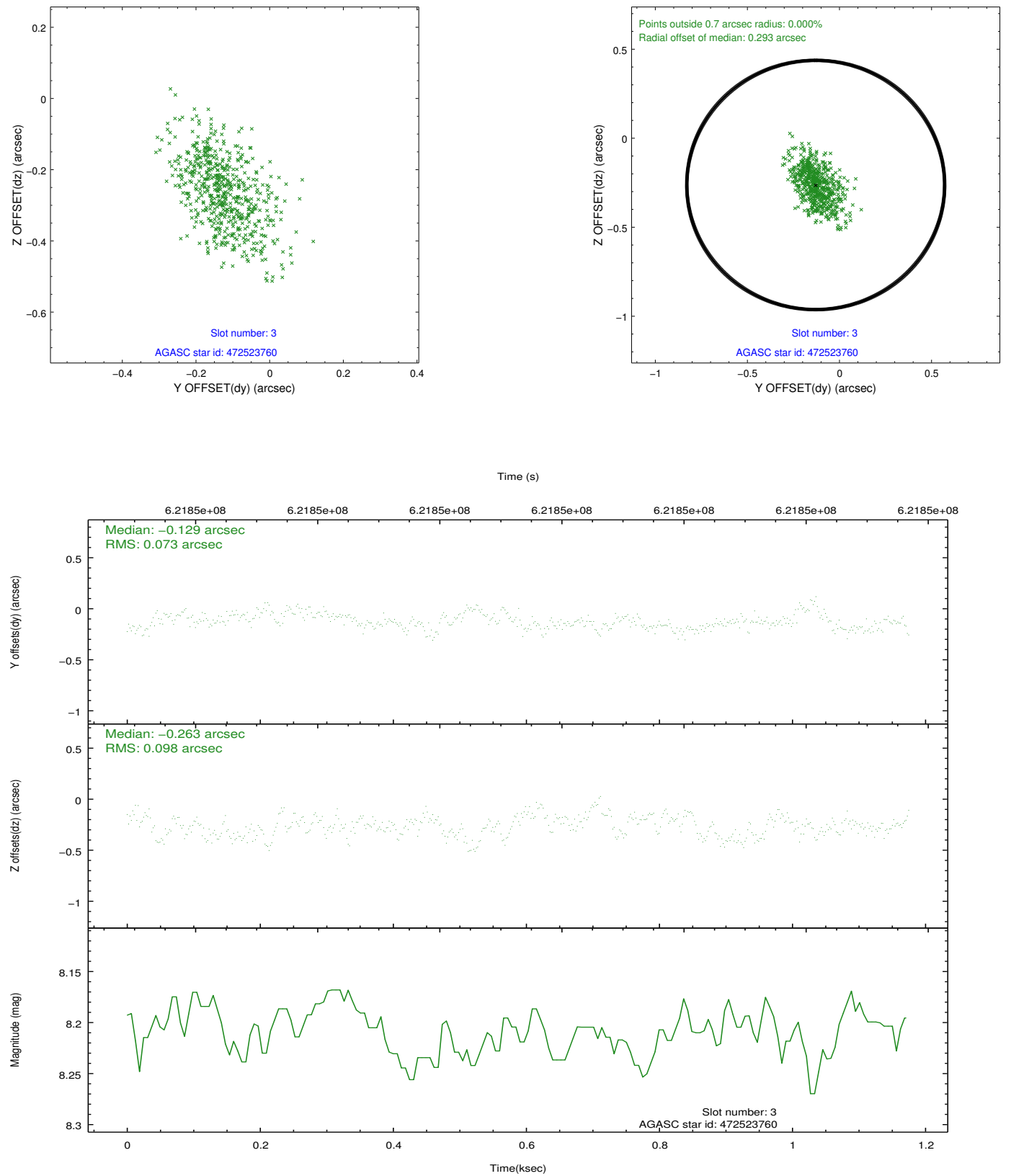
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-S-1	7.04	287	-0.060	-0.255	0.007	0.012	0.000000	0.000000	-1172.76	-467.93
1	FID		HRC-S-2	7.00	287	0.359	-0.116	0.004	0.010	0.000000	0.000000	1223.23	-461.95
2	FID		HRC-S-3	7.02	287	0.091	0.069	0.008	0.012	0.000000	0.000000	-1171.12	560.30
3	GUIDE	used	472523760	8.21	574	-0.129	-0.263	0.128	0.220	331.645363	45.403260	1910.84	645.40
4	GUIDE	used	472665256	8.97	573	0.466	0.377	0.142	0.232	332.808125	46.195041	-1974.19	-585.10
5	GUIDE	used	472535576	7.83	574	0.080	0.246	0.160	0.261	331.438373	46.291802	905.01	-2436.84
6	GUIDE	used	472655152	9.40	572	0.293	-0.185	0.227	0.350	332.504239	45.862991	-763.90	141.44
7	GUIDE	used	472525528	6.64	573	-0.713	-0.149	0.125	0.231	331.551102	45.248694	2375.24	1031.66

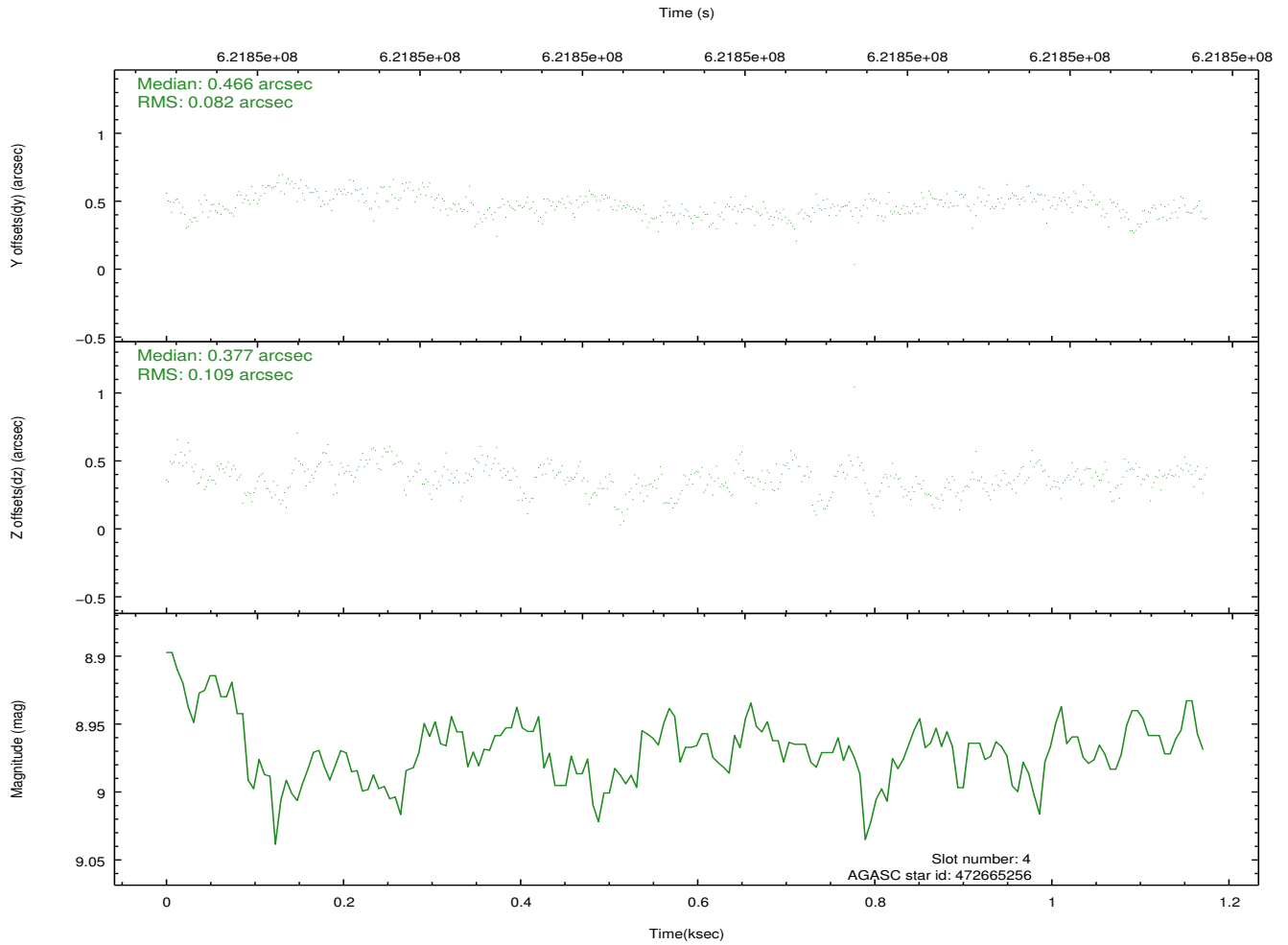
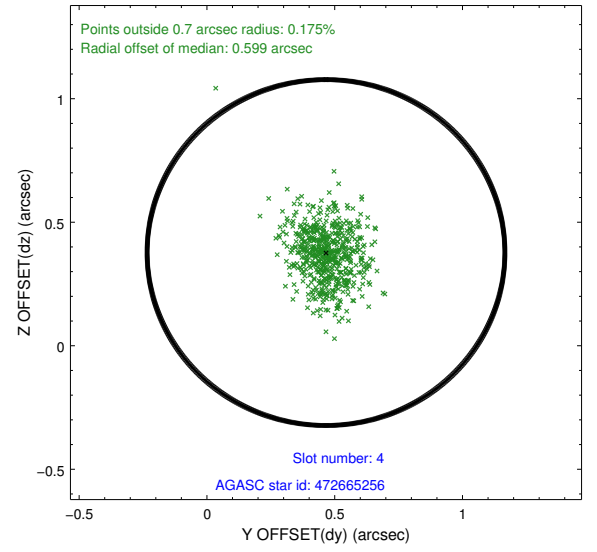
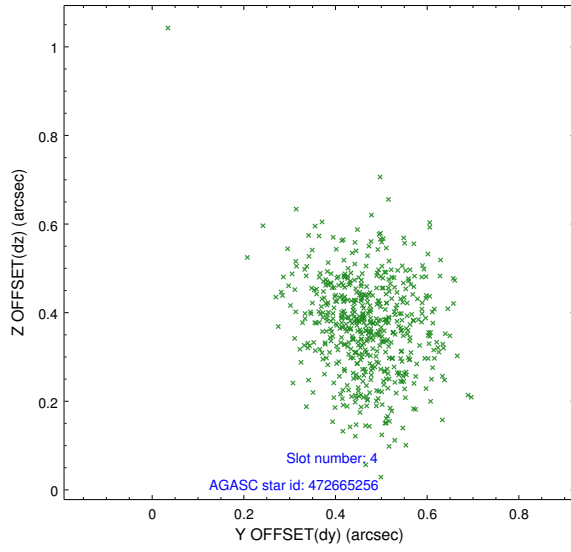


## 2.4 Star Slots

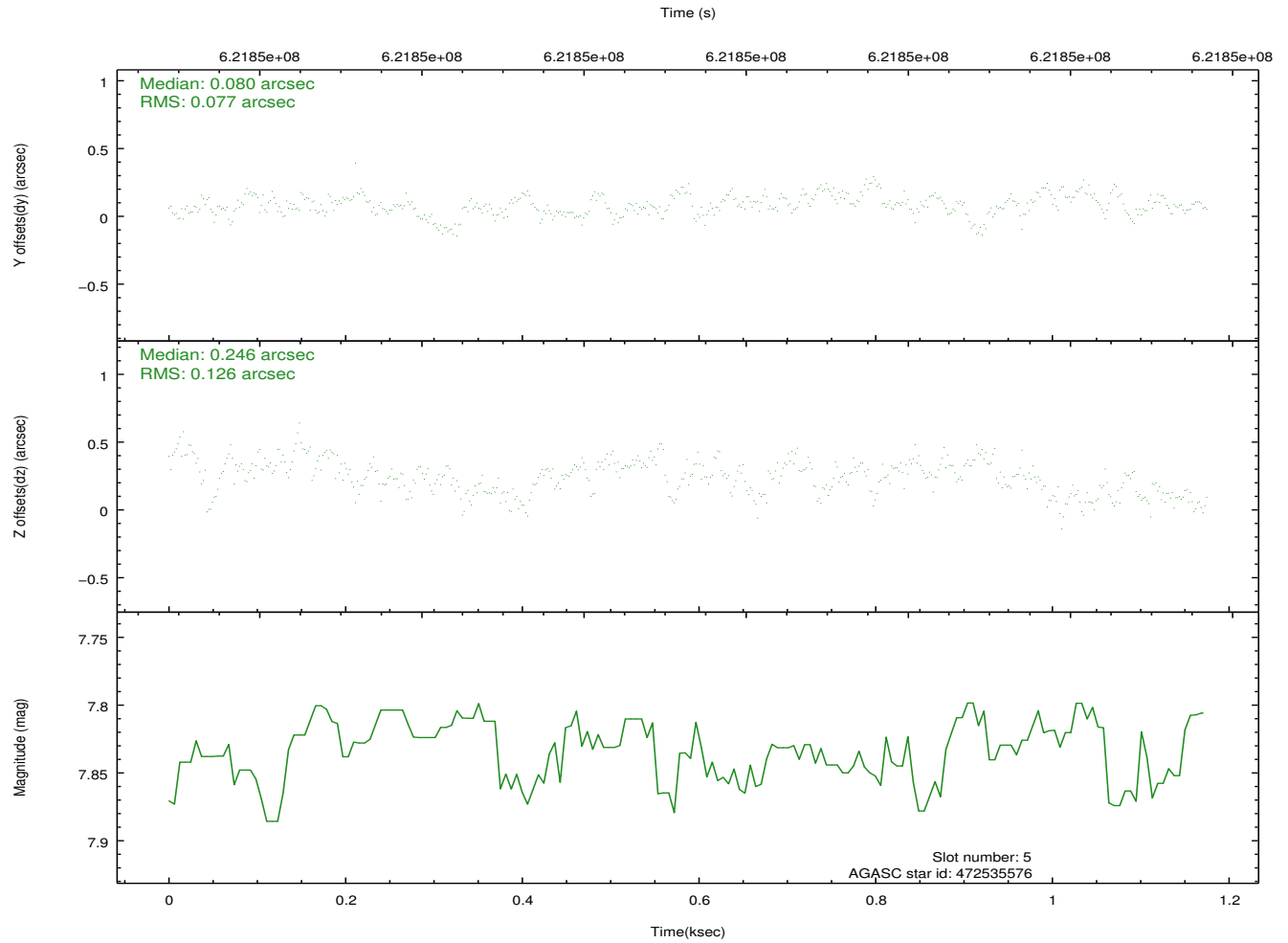
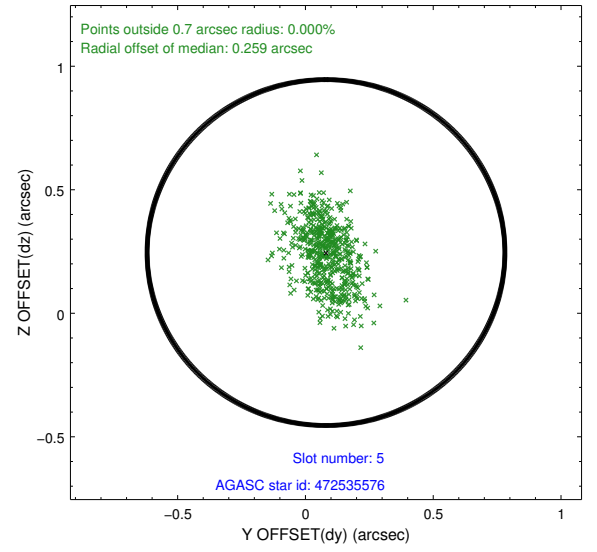
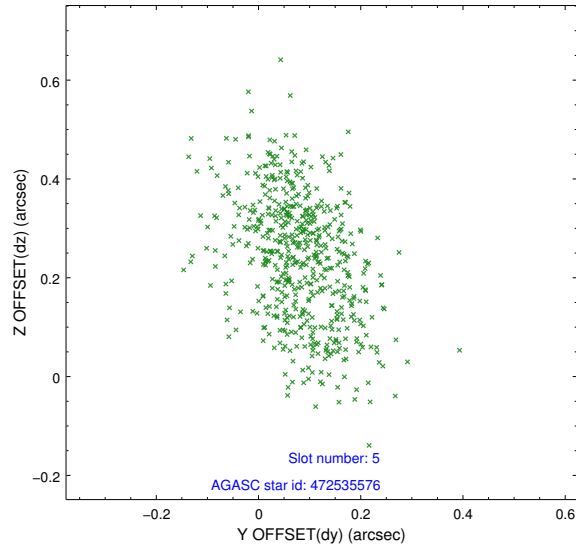
### 2.4.1 Slot 3



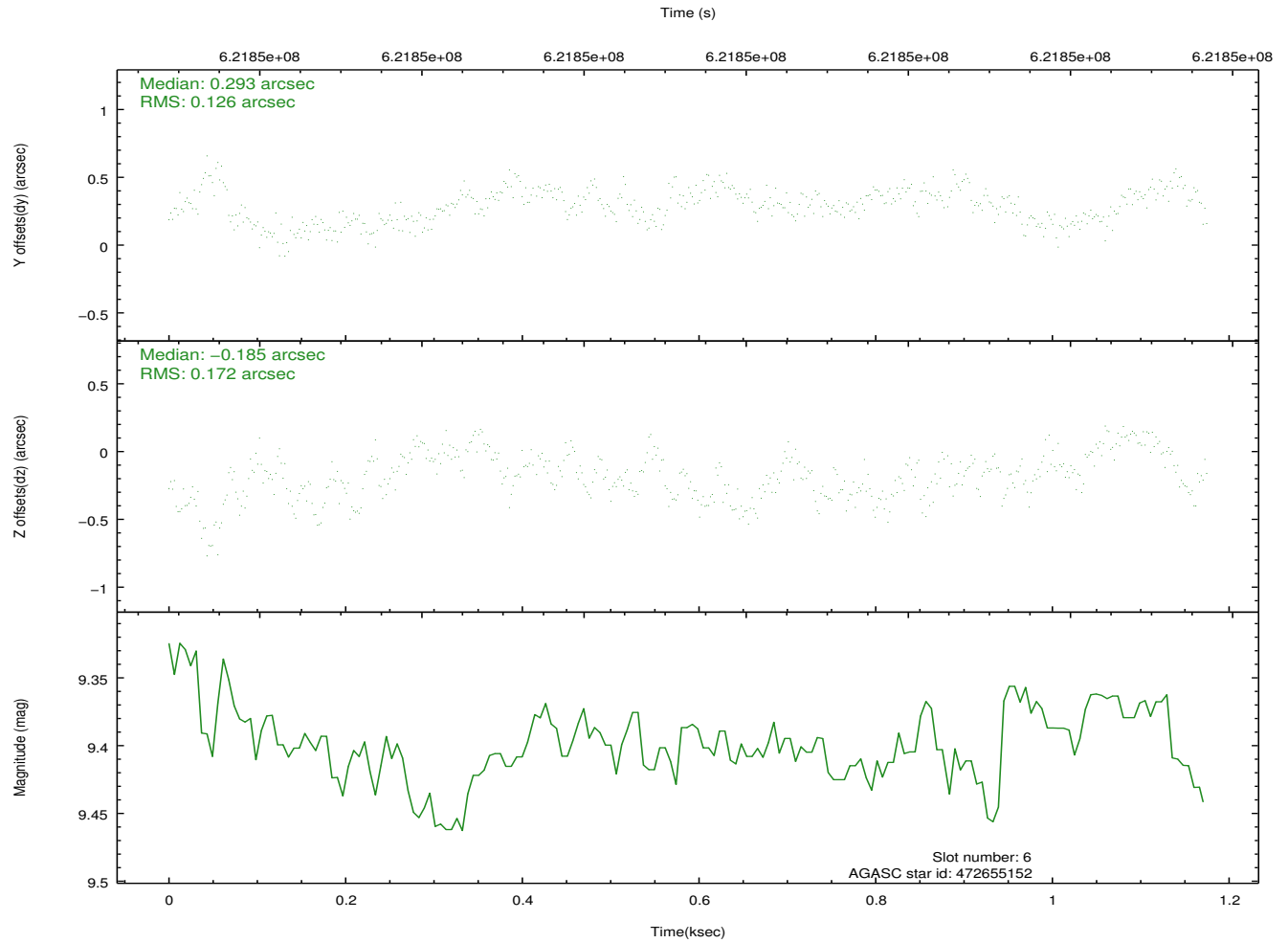
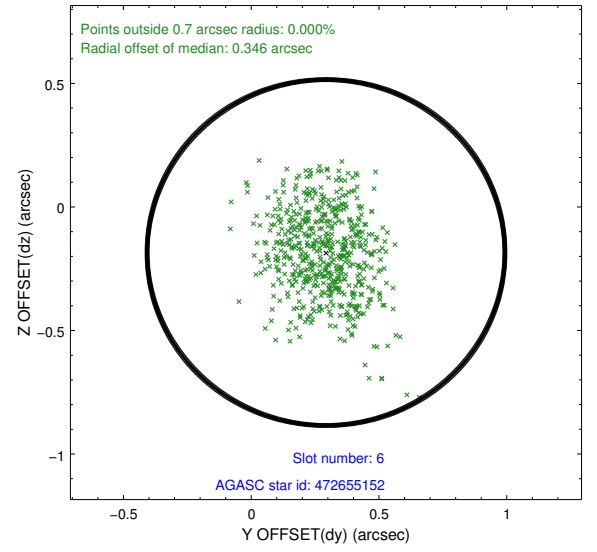
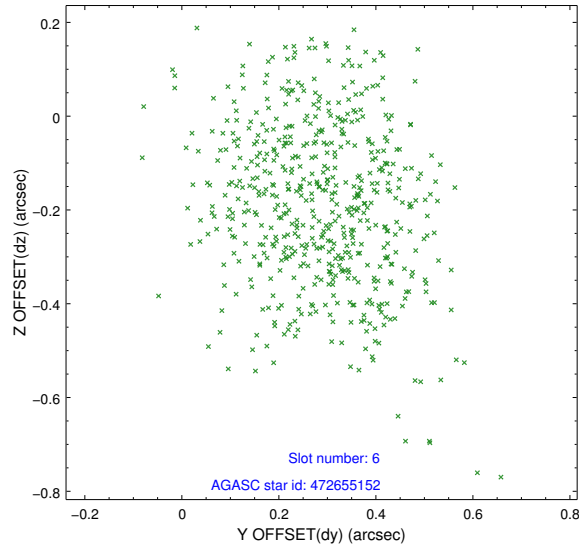
## 2.4.2 Slot 4



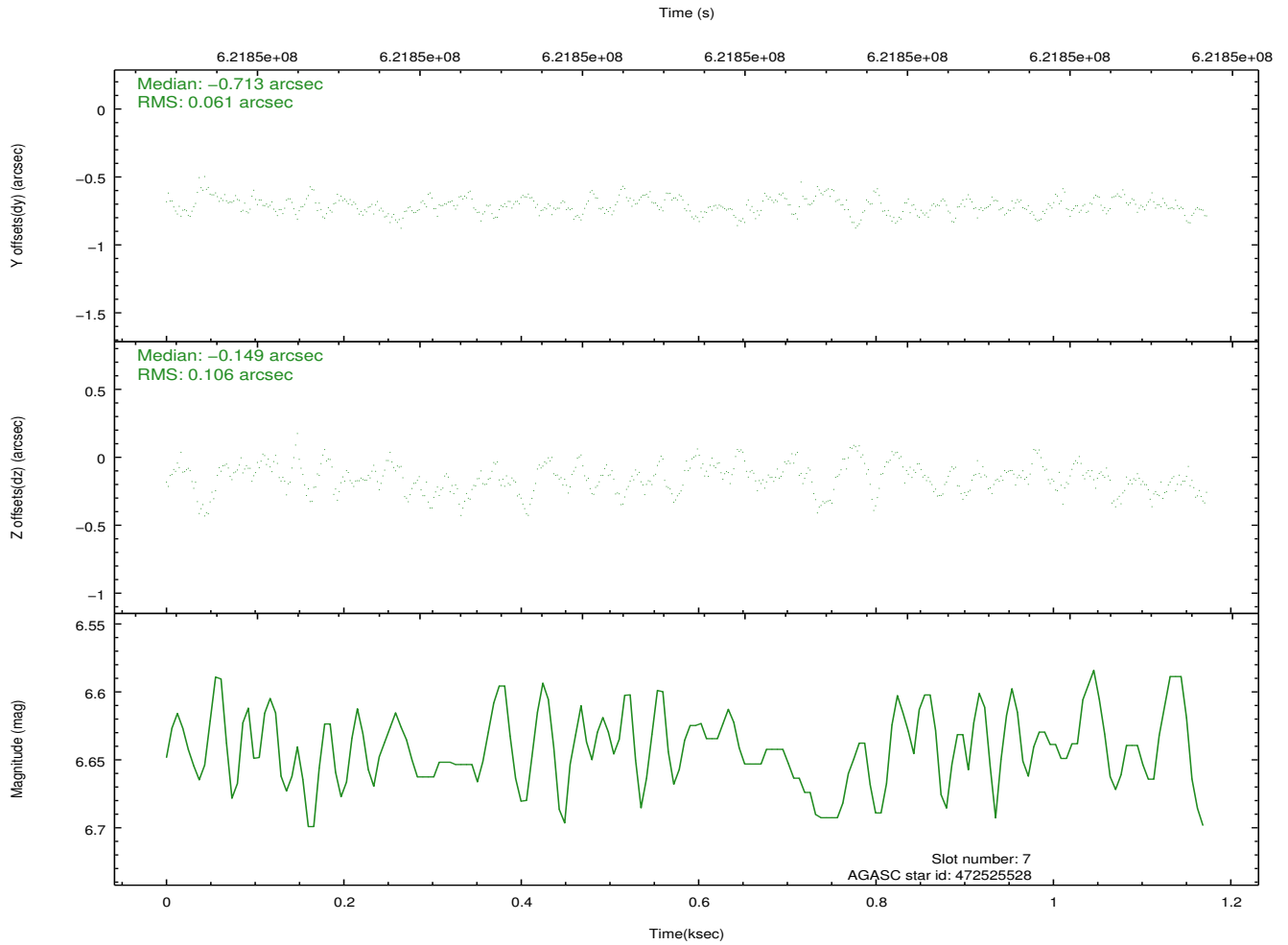
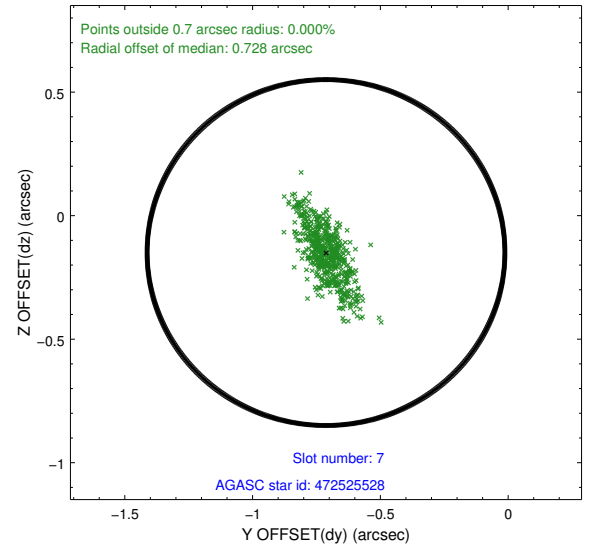
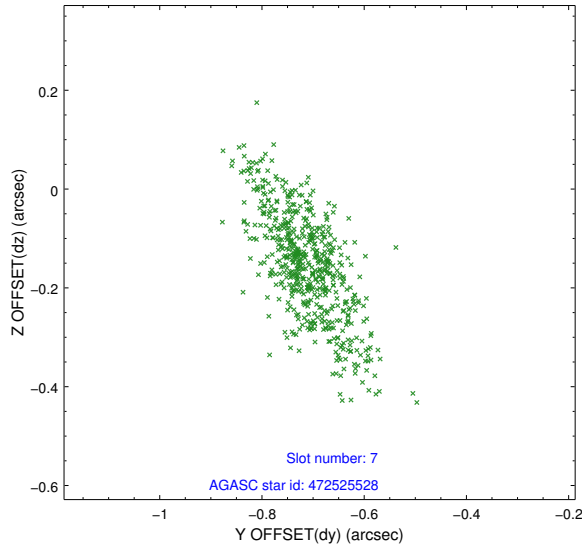
### 2.4.3 Slot 5



## 2.4.4 Slot 6

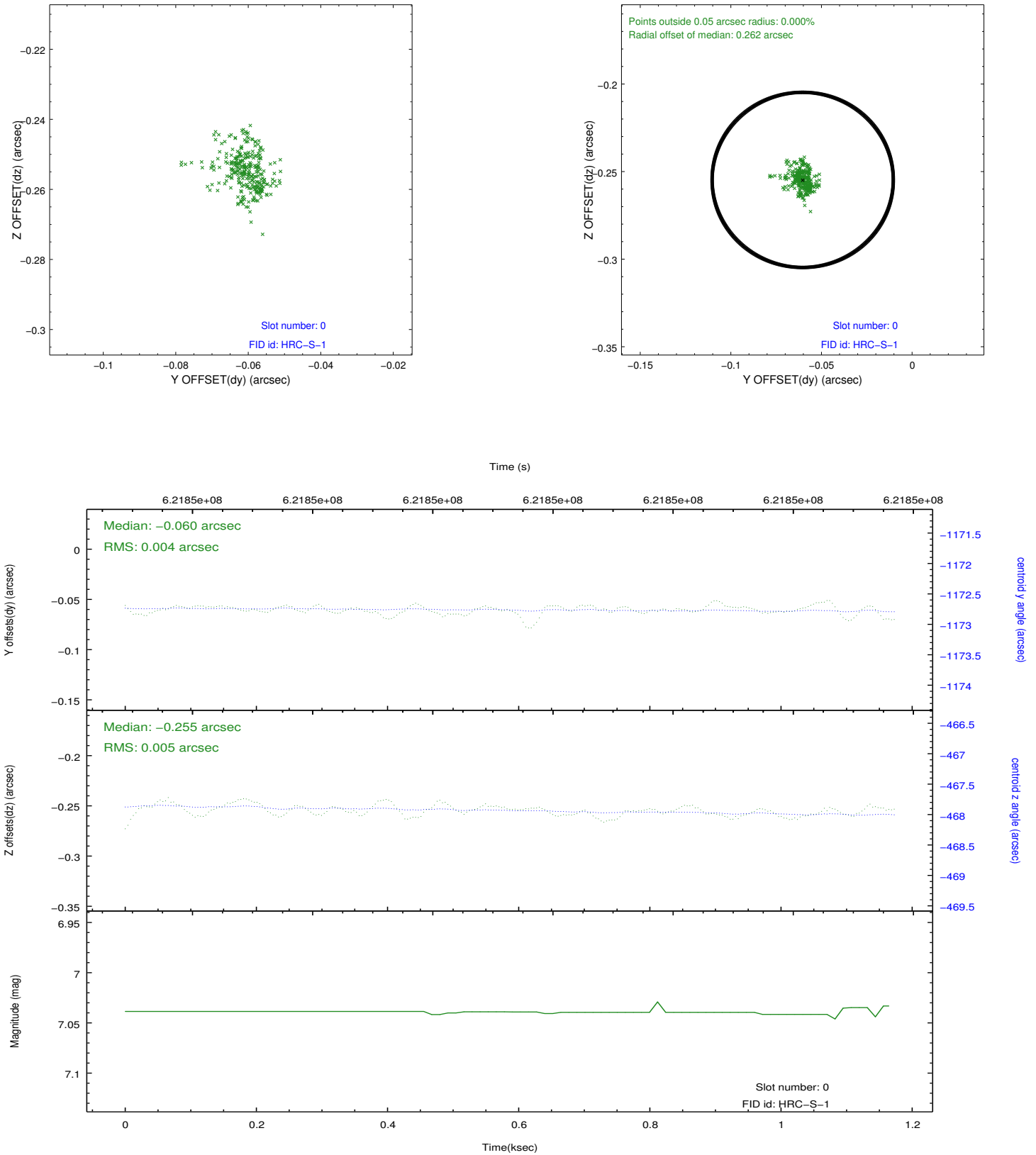


## 2.4.5 Slot 7

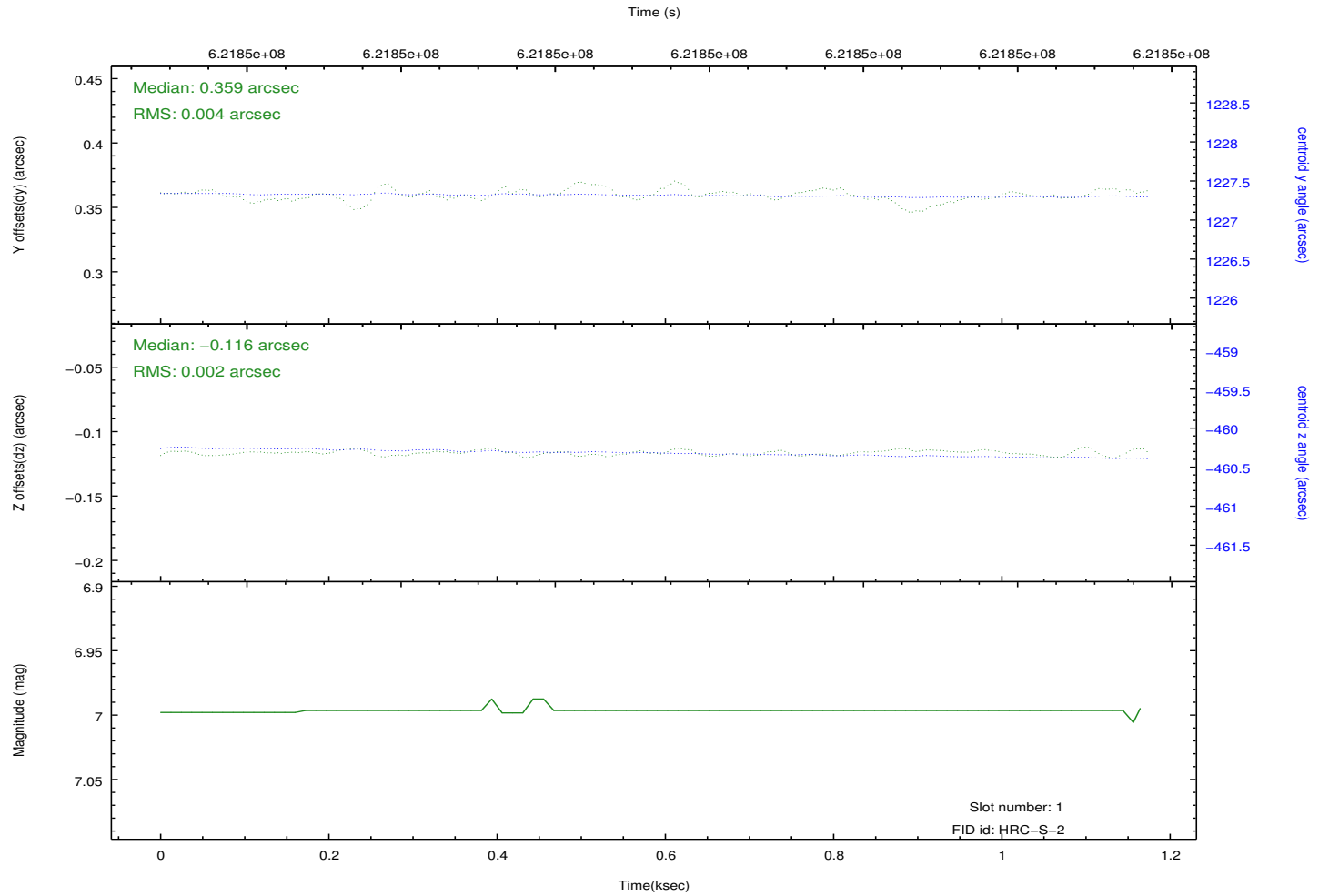
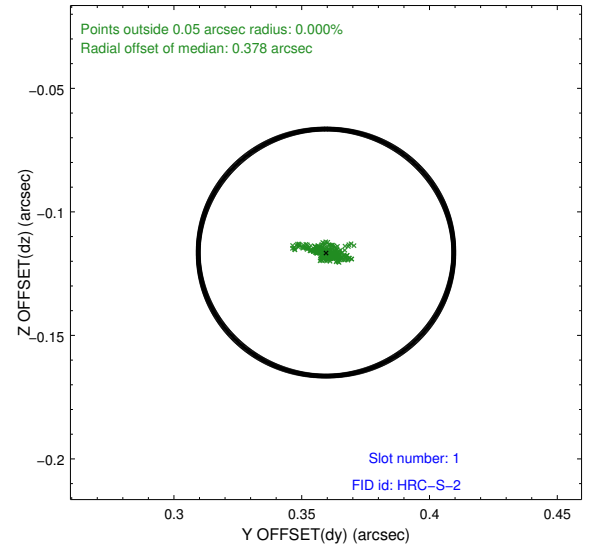
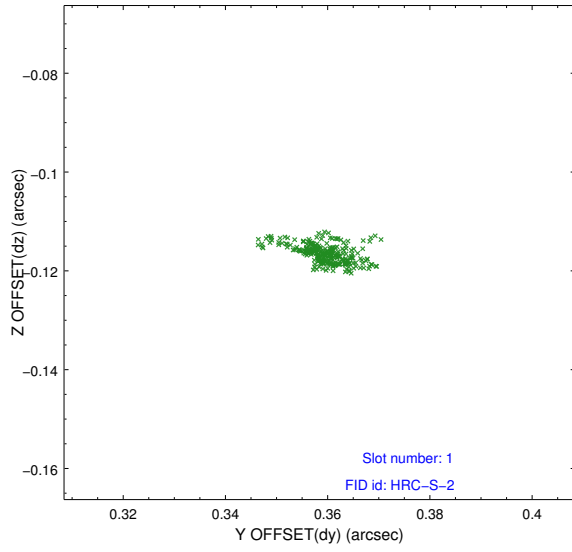


## 2.5 FID Slots

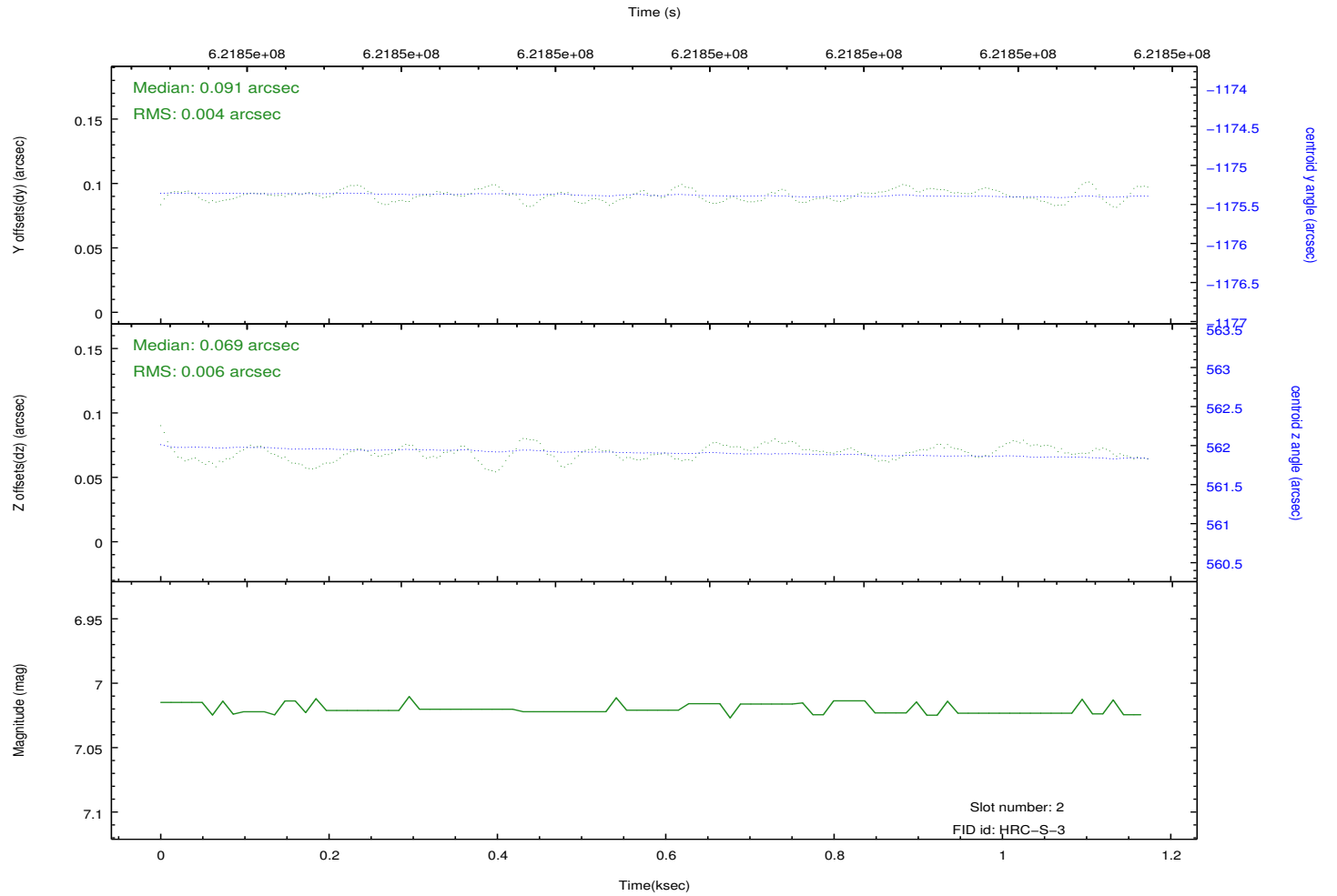
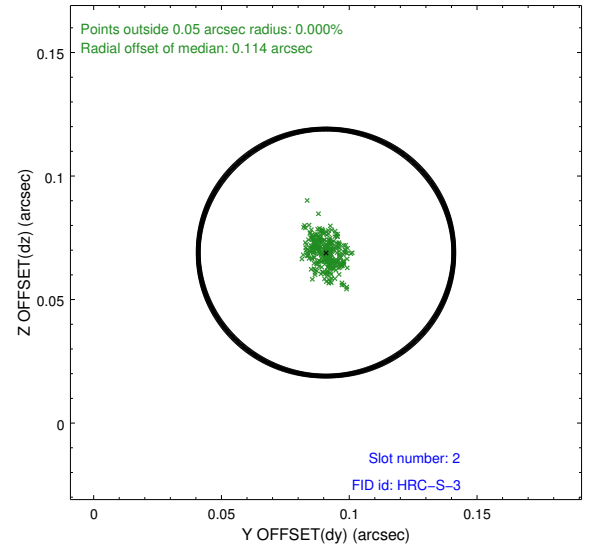
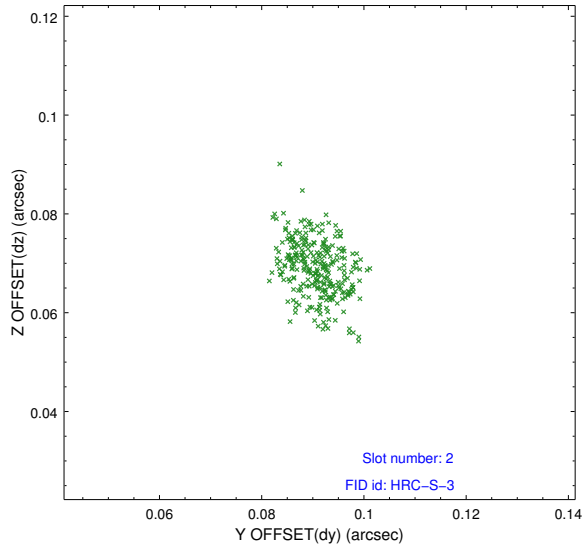
### 2.5.1 Slot 0



## 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)	2017.09.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.1736250687838

### A.2 Comments