

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 62507 - L2 Version 4  
Chandra X-Ray Center

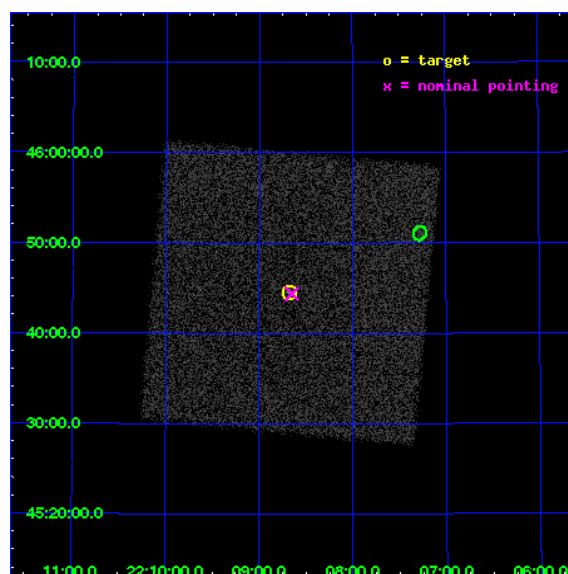
L2 Processing Date : Nov 19 2009

## 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>3</b>	<b>Point Sources</b>	<b>17</b>
<b>A</b>	<b>Summary</b>	<b>18</b>
A.1	Status . . . . .	18
A.2	Comments . . . . .	18

# 1 Front

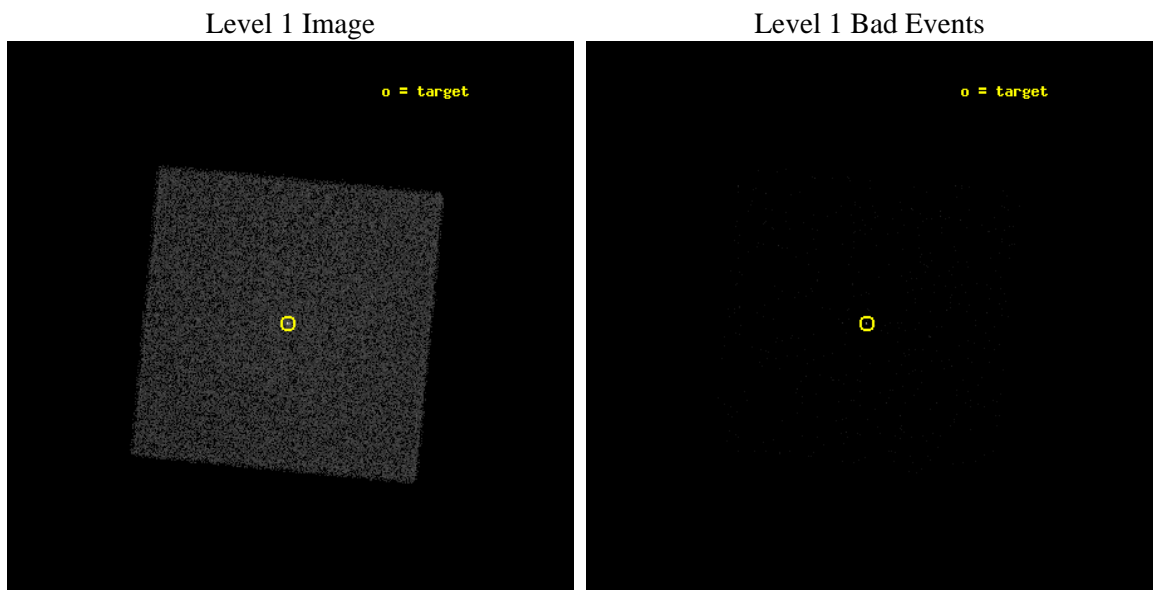
seq_num	270335	Sequence number
obs_id	62507	Observation id
title	&#160	Proposal title
observer	Dr. CXC Calibration	Principal investigator
object	ArLac	Source name
ra_targ	332.1701	Observer's specified target RA
dec_targ	45.7423	Observer's specified target Dec
ra_nom	332.16258131899	Nominal RA
dec_nom	45.739800225086	Nominal Dec
roll_nom	230.44485890853	Nominal Roll
revision	4	Processing version of data
ontime	1599.0000576004	[s]
livetime	1588.0424530153	Ontime multiplied by DTCOR
l2events	43014	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	10000.000000	Scheduled observation exposure time
ascdsver	8.1.1	Processing system revision	ontime	1599.0000576004	[s]
caldbver	4.1.4	&#160	ll events	82730	Number of level 1 events
date	2009-11-19T08:33:52	Date and time of file creation			
revision	3	Processing version of data			

### 2.1.3 Events

#### Level 1 Events

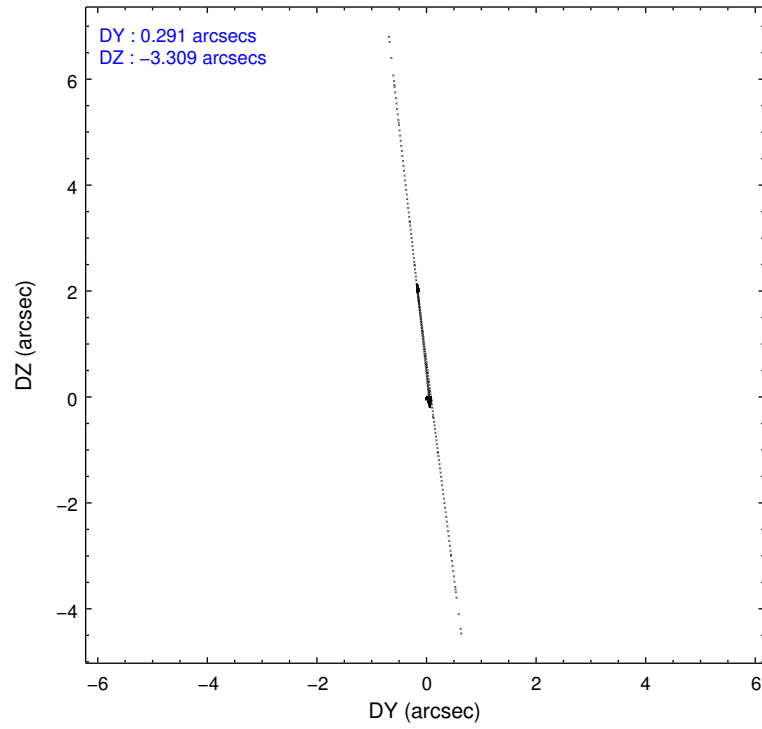
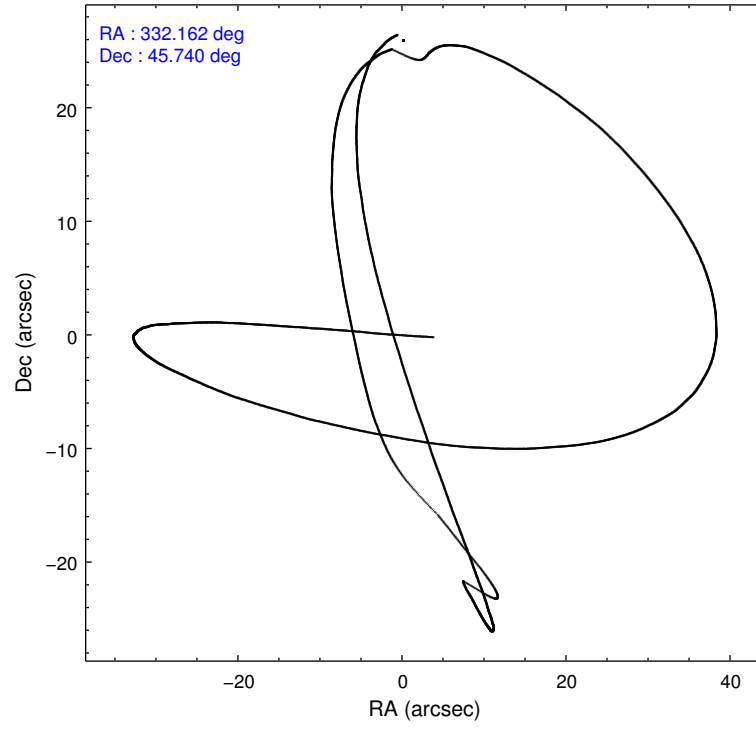
	<b>segment 0</b>
level 1 events	82730
rejected events	7413
rejected %	8%

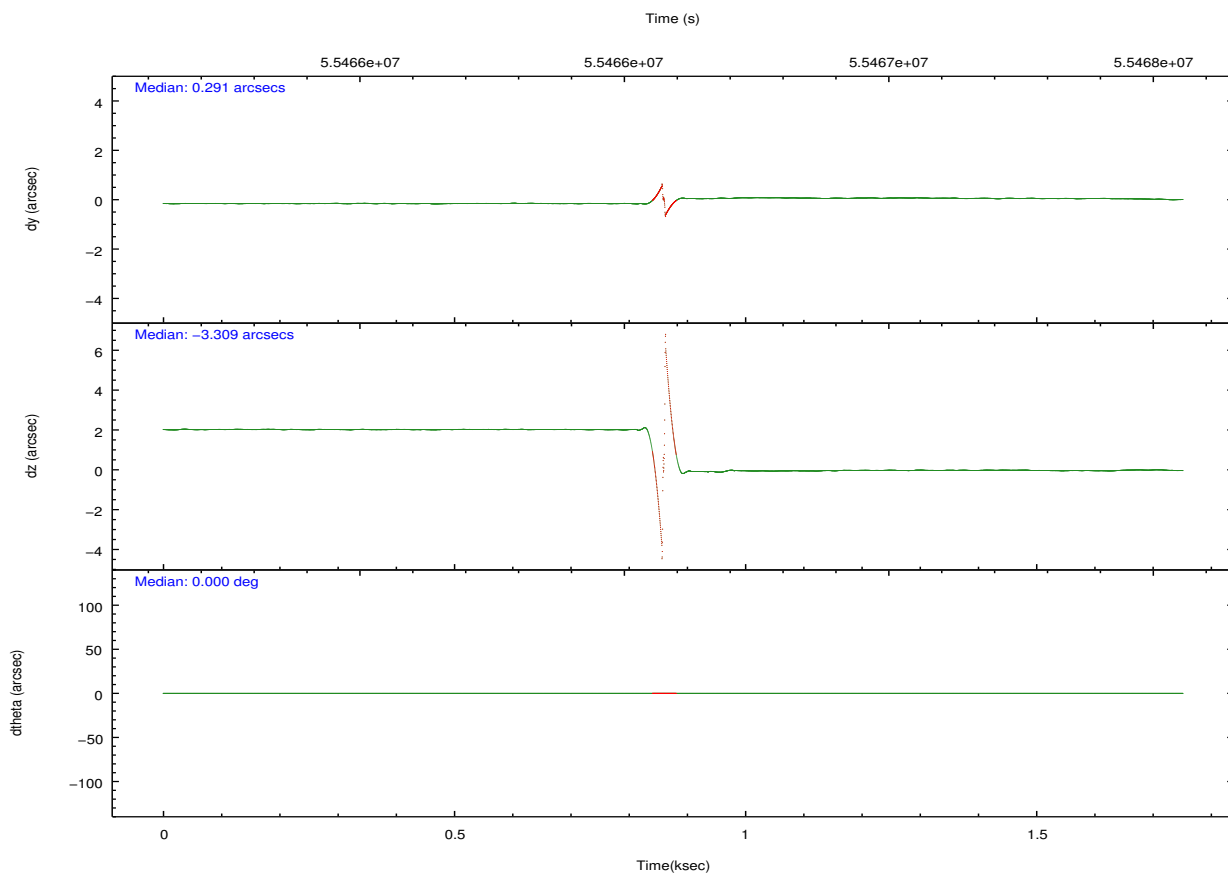
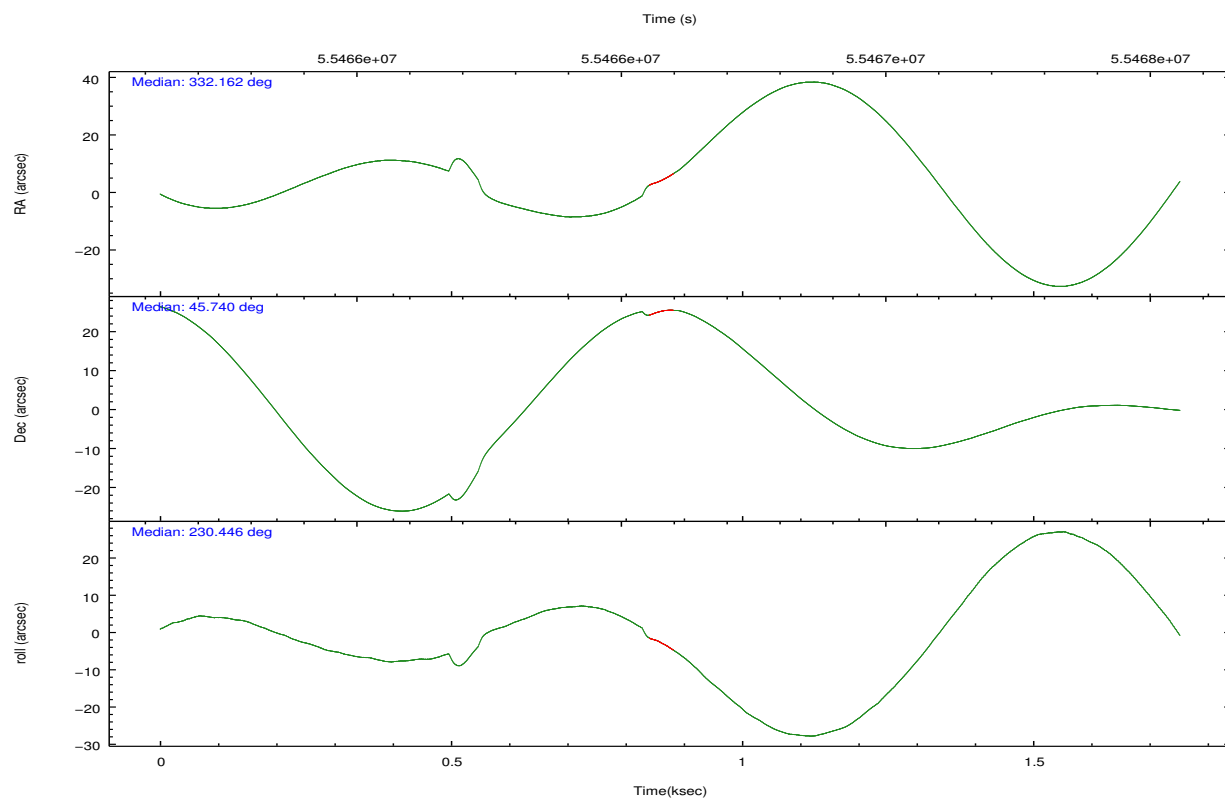
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
Pointing RA	332.170381	332.1625813189886
Pointing Dec	45.767178	45.73980022508648
Pointing Roll	230.534662	230.4448589085334
SIM focus pos (mm)	-1.040293	-1.041718744158295
SIM defocus (mm)	0	-0.001426123499420617
SIM translation stage pos (mm)	126.985494	126.9854943052878
SIM translation stage offset (mm)	0	-5.413686238853188e-06
Observation start time	55465264.184000	55465714.535599
Observation start date	1999-10-04T23:00:00	1999-10-04T23:08:34
Observation end time	55475264.184000	55467469.335662
Observation end date	1999-10-05T01:46:40	1999-10-04T23:37:49

Parameter	Planned	Actual
Obspar format version number	6	6
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED

## 2.3 Aspect





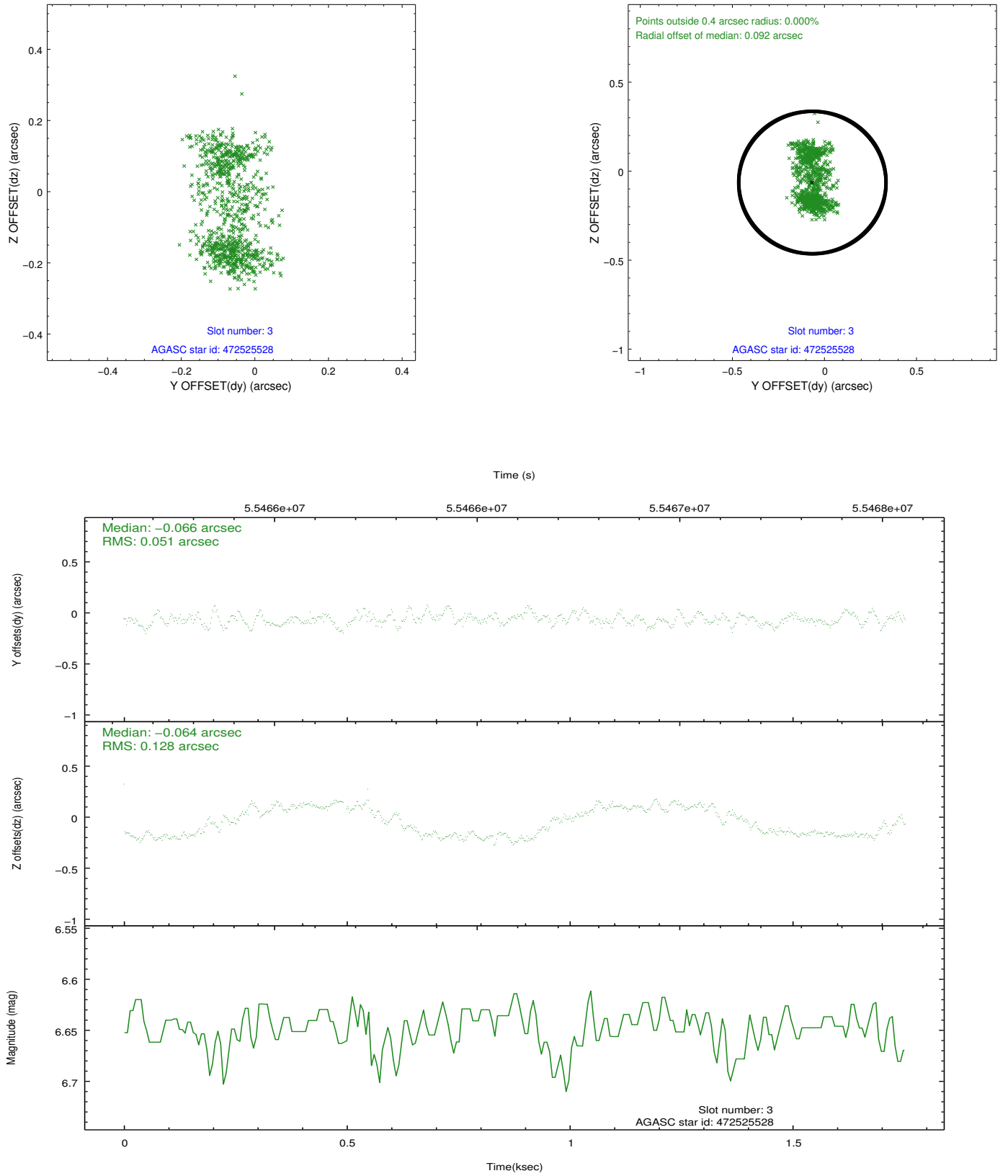
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	HRC-I-1	7.07	832	0.037	-0.032	0.000	0.000	0.000000	0.000000	-755.41	-1285.45
1	BAD	HRC-I-3	7.15	679	0.314	0.509	0.435	0.463	0.000000	0.000000	-1185.10	1017.78
2	BAD	HRC-I-4	7.09	679	0.696	0.323	0.673	0.699	0.000000	0.000000	1285.80	1018.91
3	GUIDE	472525528	6.65	853	-0.066	-0.064	0.153	0.217	331.551102	45.248694	2430.76	-26.89
4	GUIDE	472523760	8.24	853	0.059	0.052	0.060	0.093	331.645363	45.403260	1851.32	-192.16
5	GUIDE	472665256	9.00	853	-0.001	-0.043	0.067	0.108	332.808125	46.195041	-2205.11	245.96
6	GUIDE	472659832	9.46	853	-0.013	0.047	0.089	0.147	332.780399	46.098139	-1897.93	417.35
7	GUIDE	472655152	9.43	852	0.011	-0.005	0.097	0.148	332.504239	45.862991	-804.95	428.66

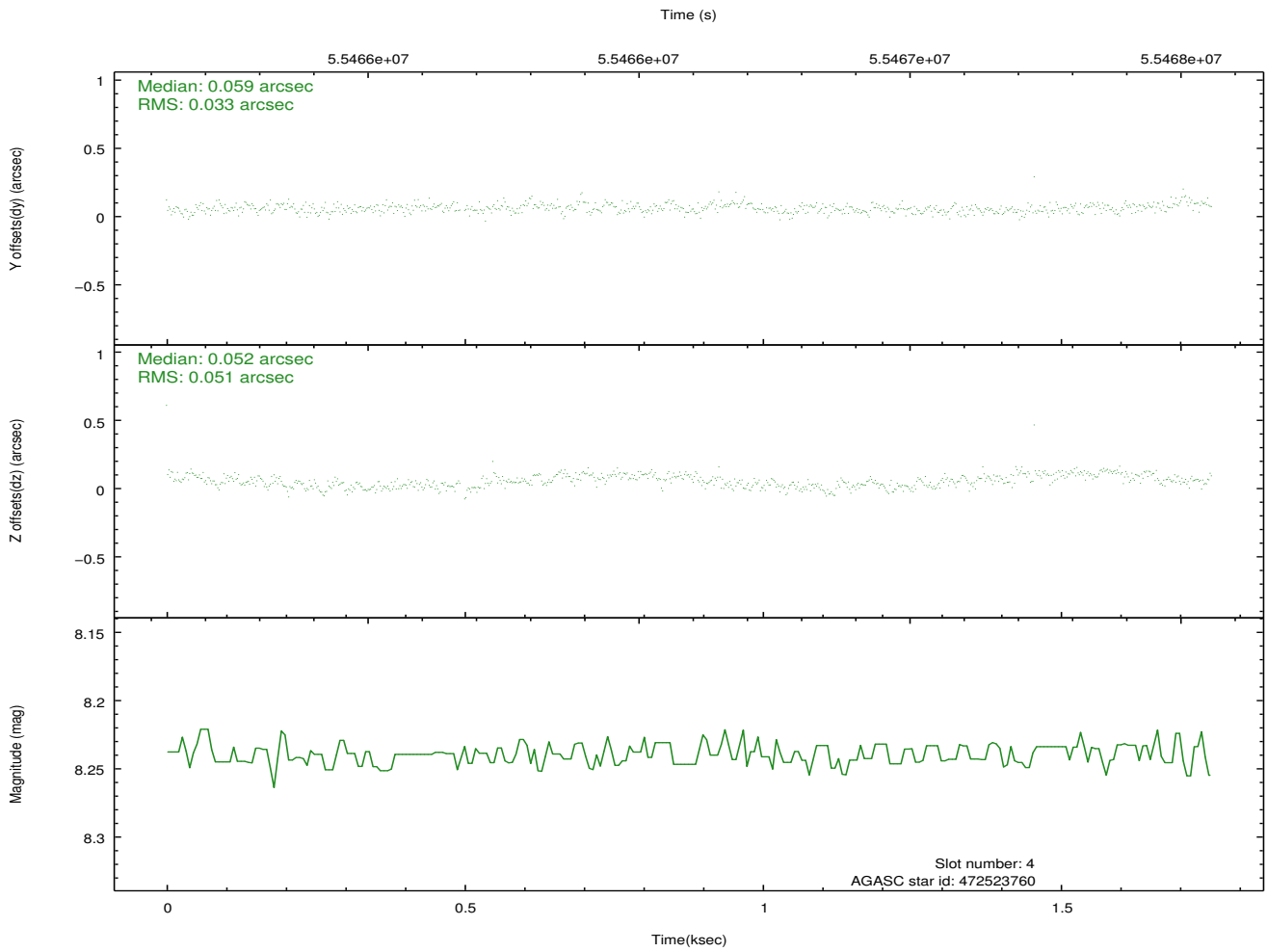
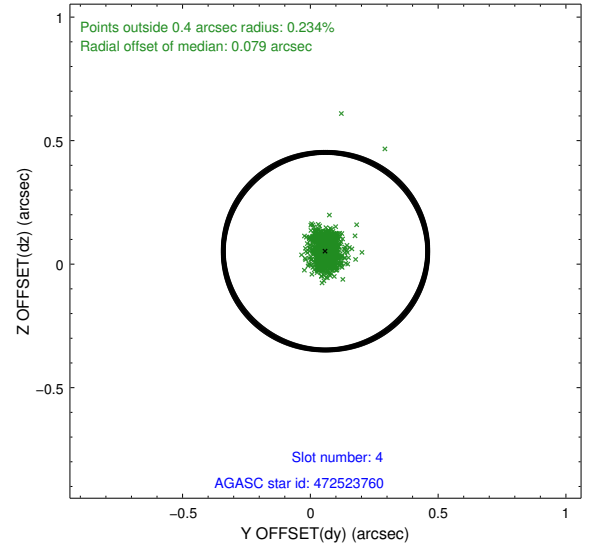
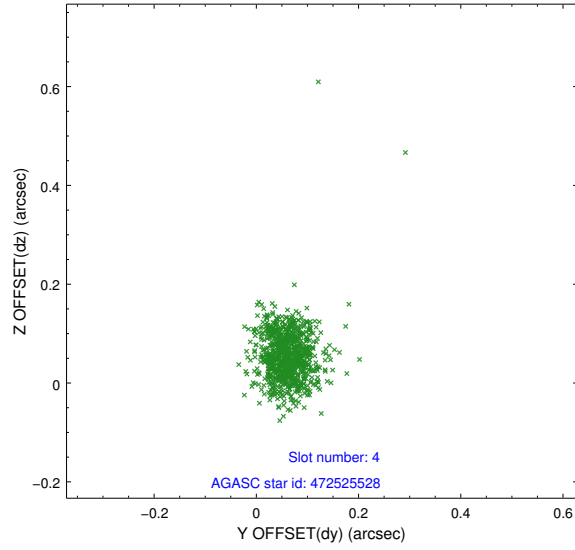


## 2.4 Star Slots

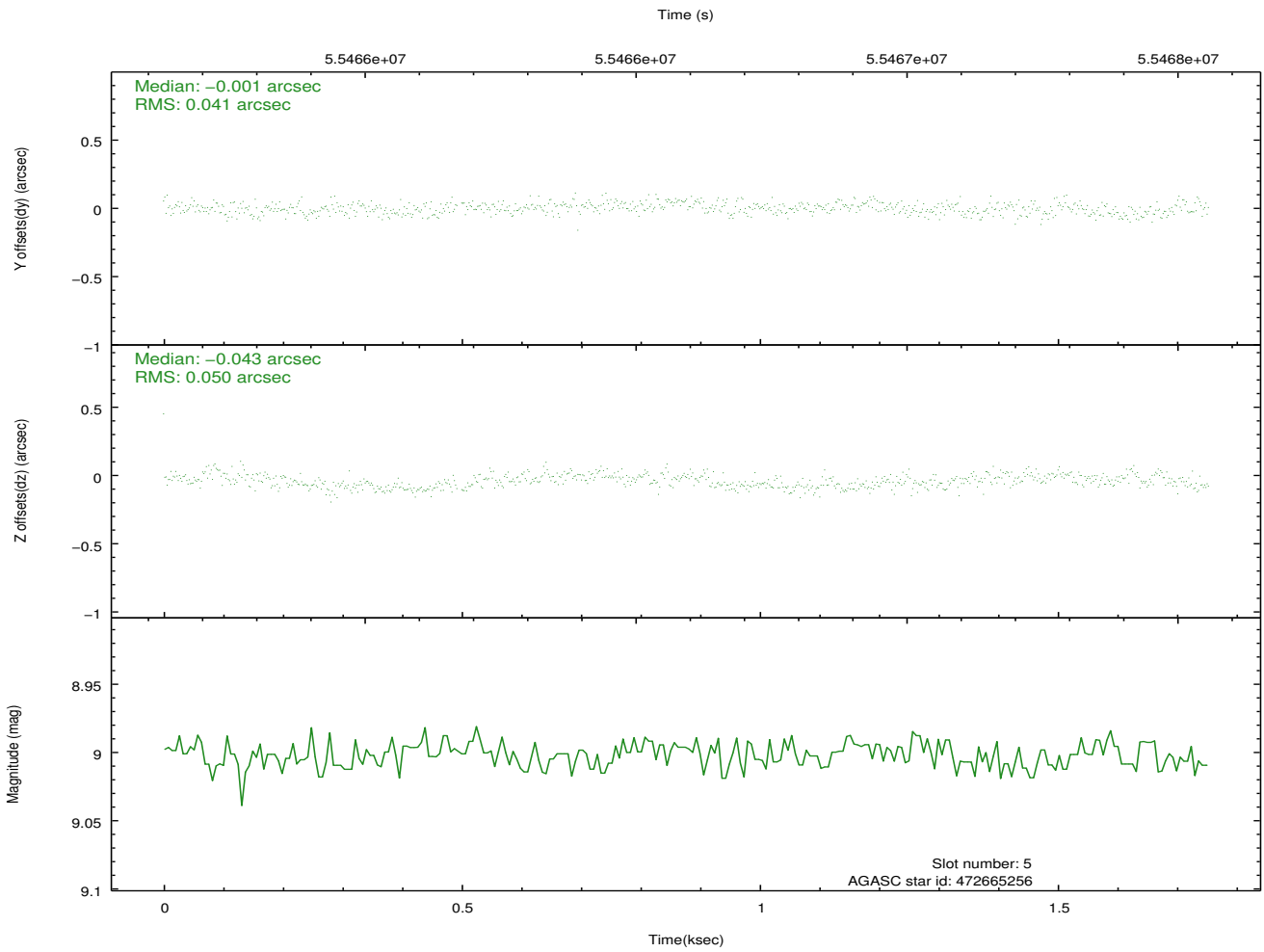
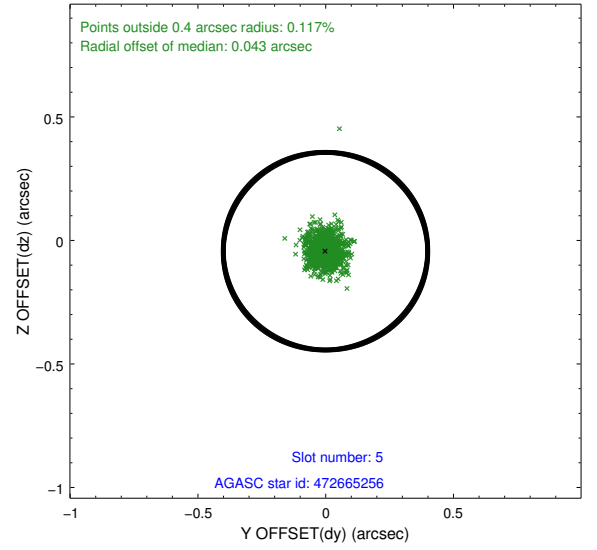
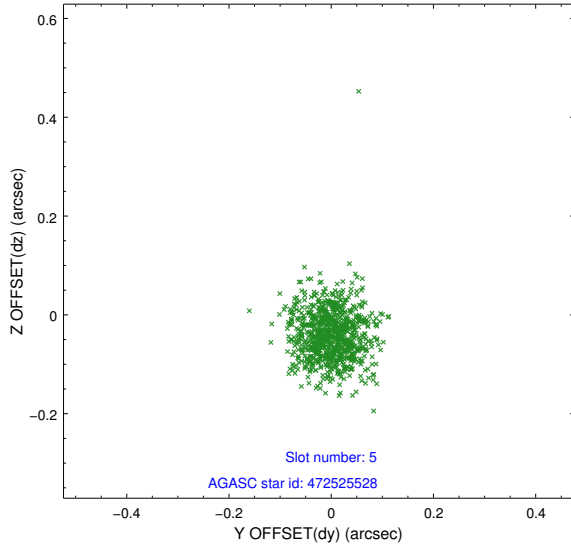
### 2.4.1 Slot 3



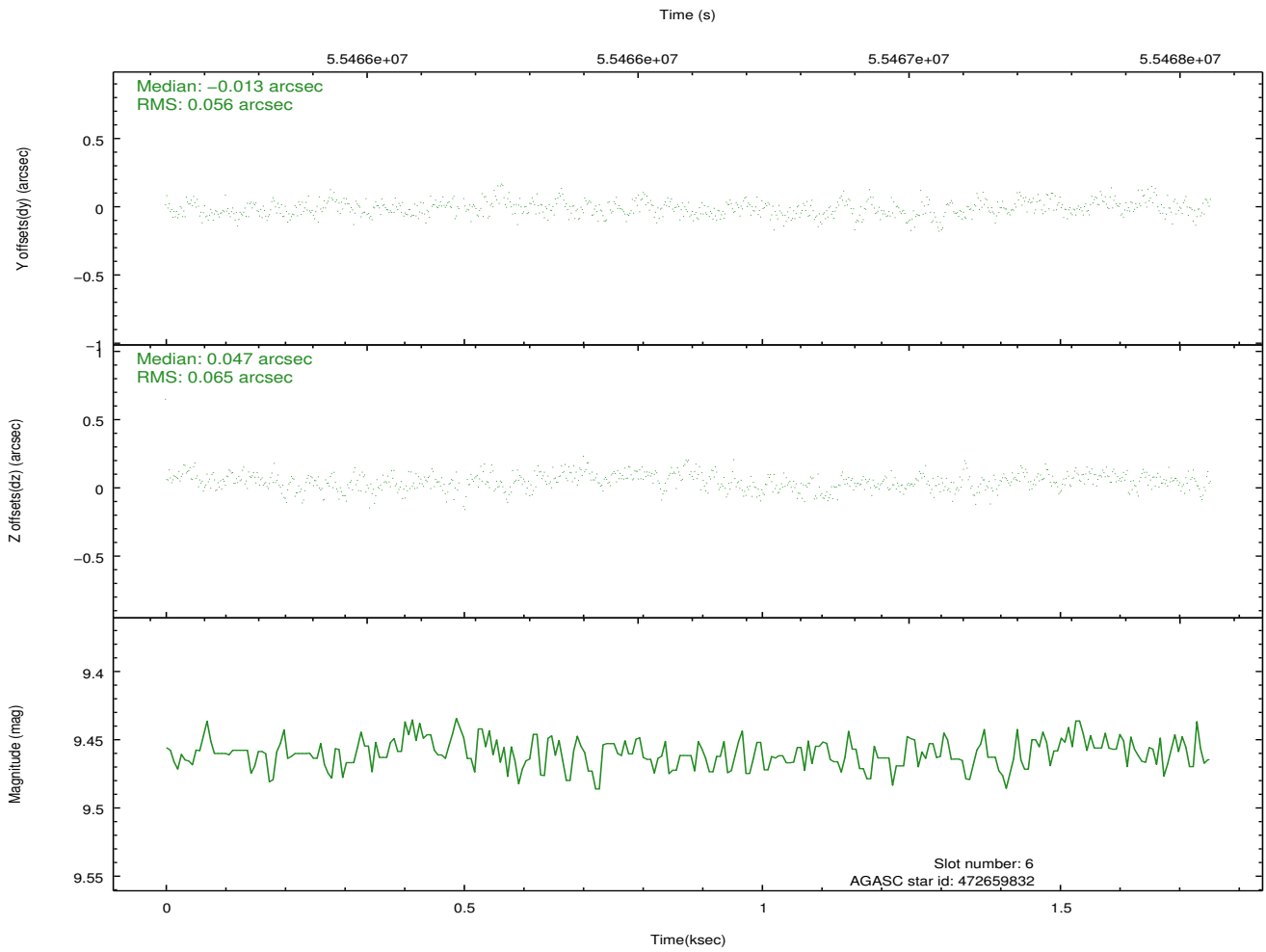
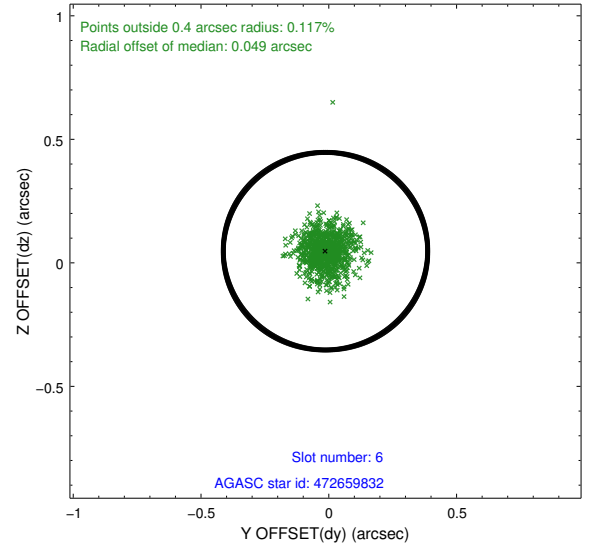
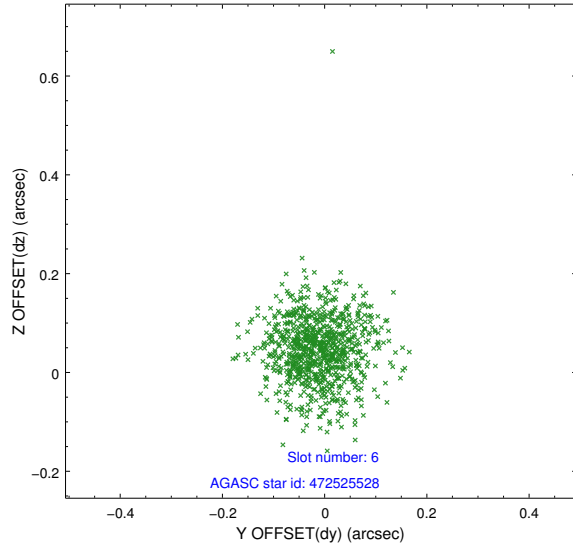
## 2.4.2 Slot 4



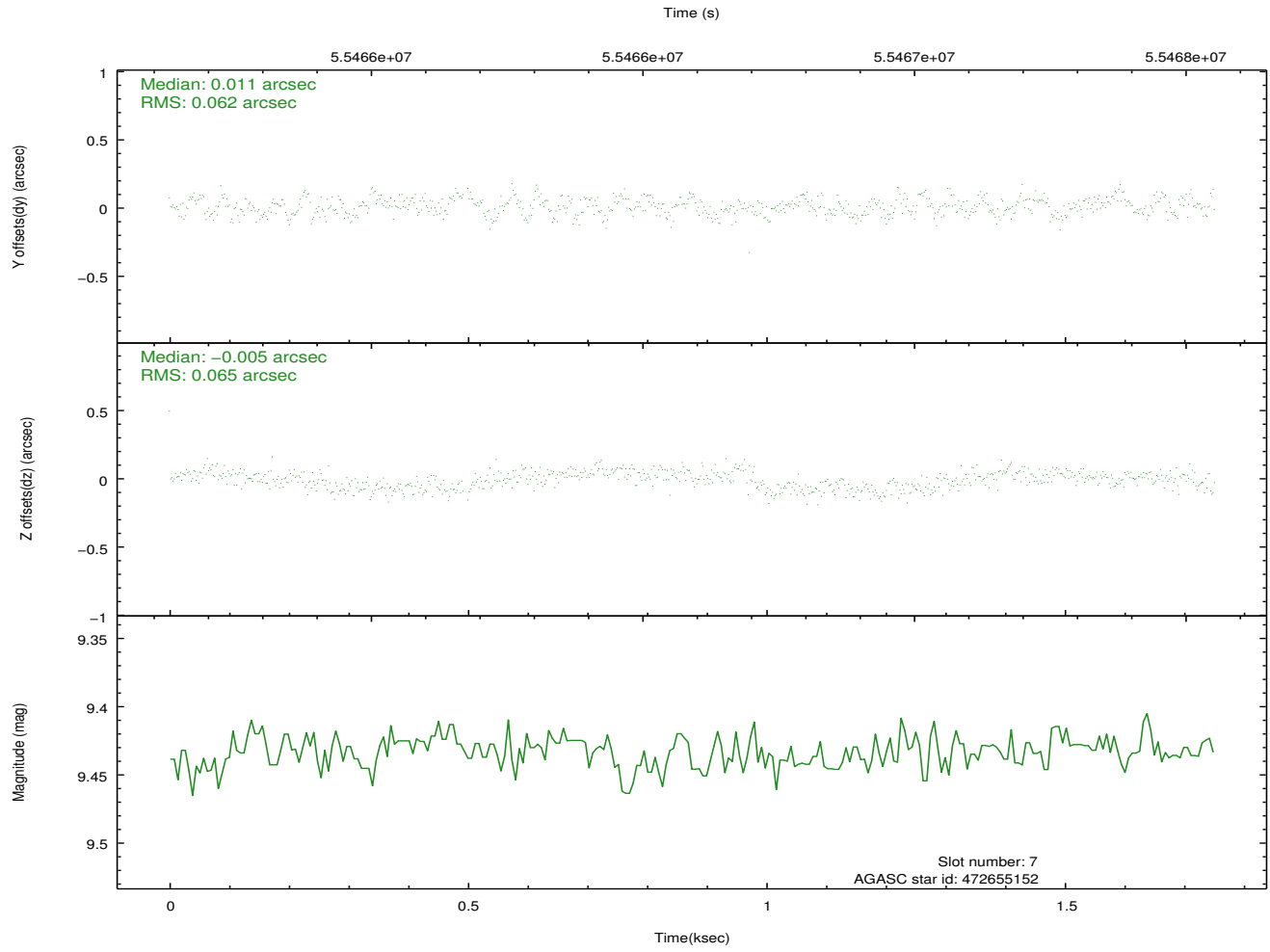
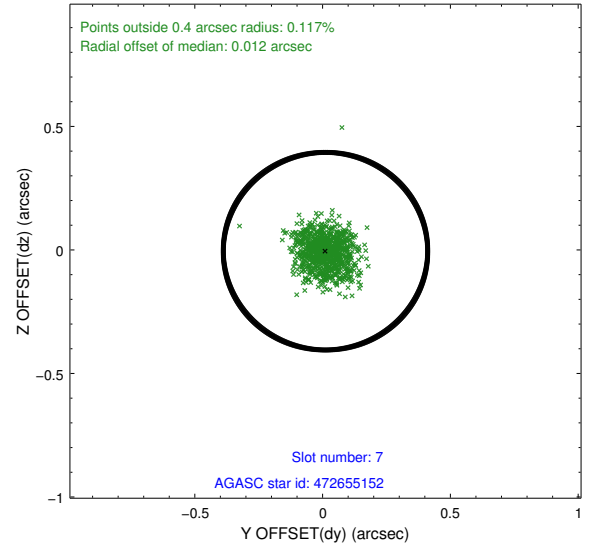
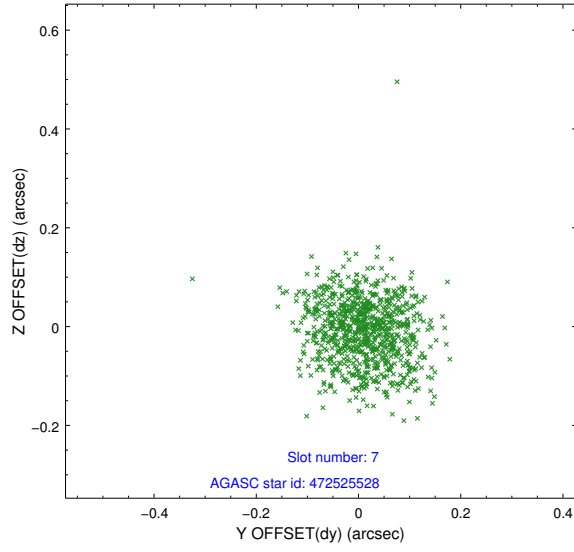
### 2.4.3 Slot 5



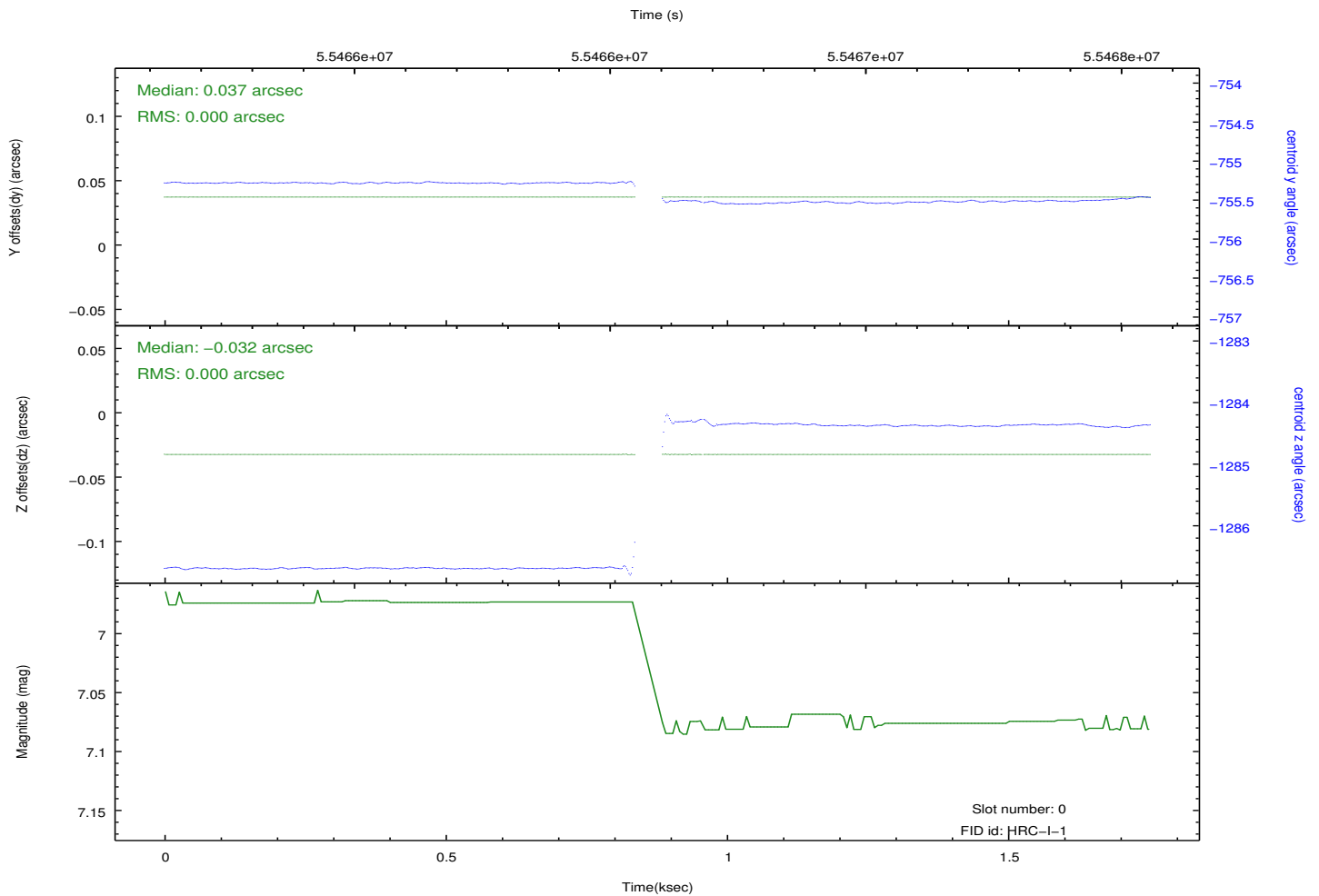
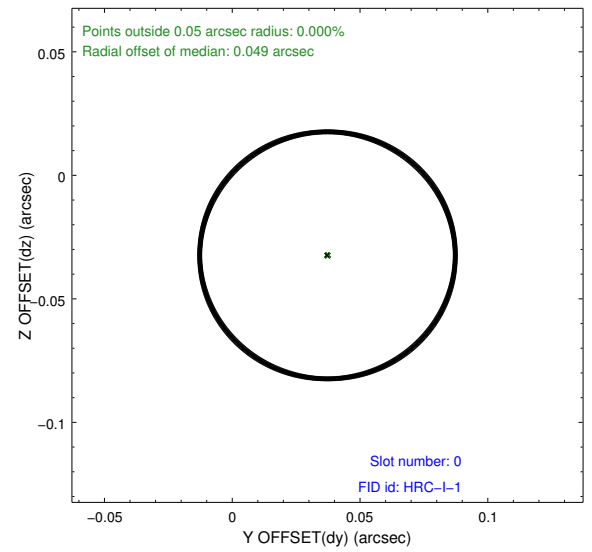
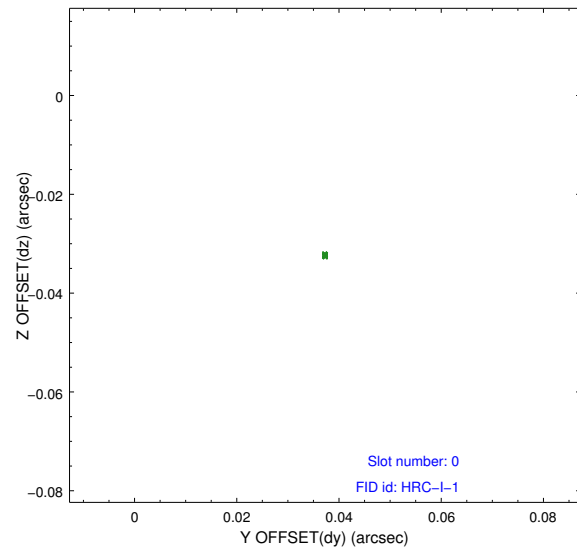
## 2.4.4 Slot 6



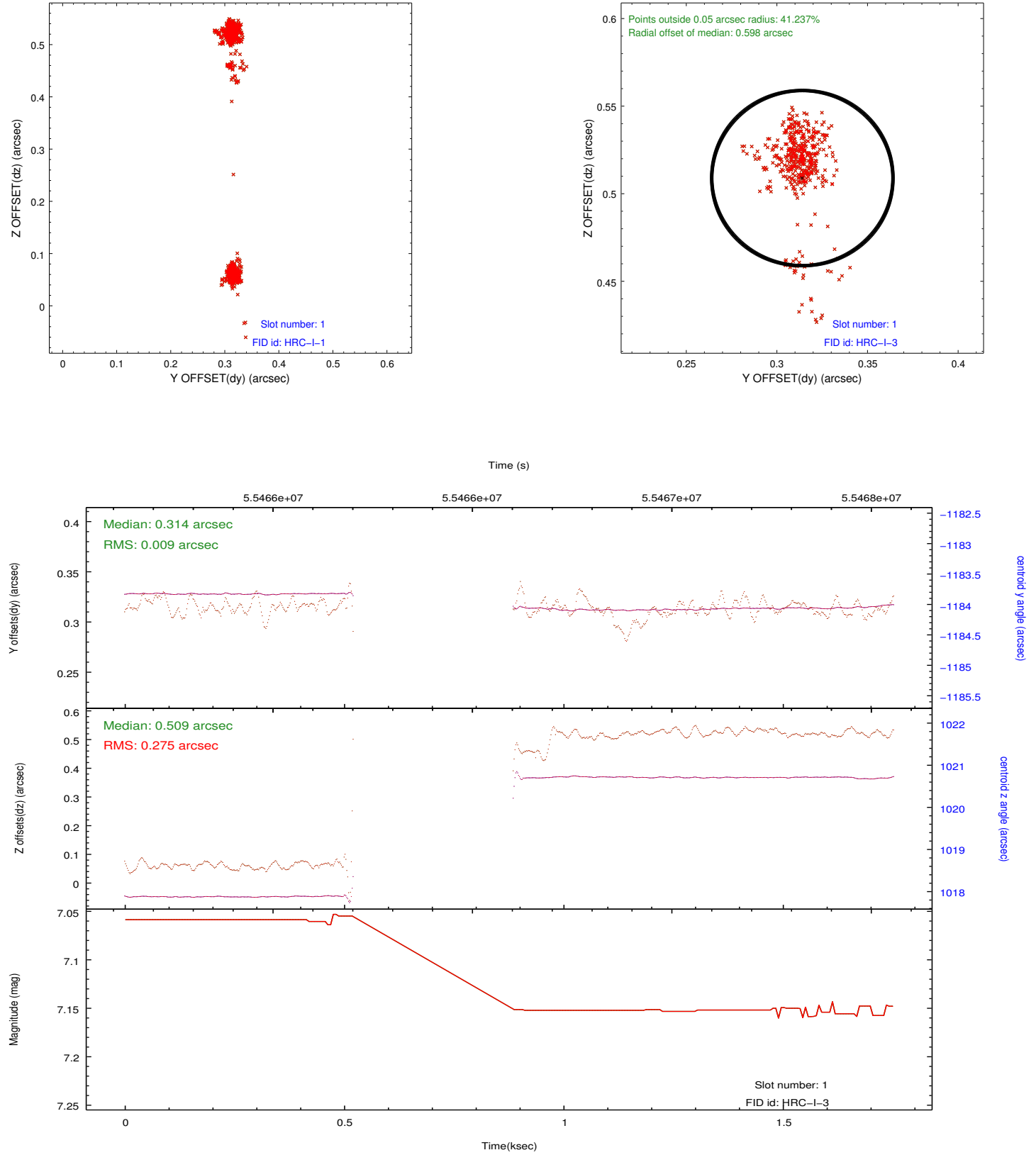
## 2.4.5 Slot 7



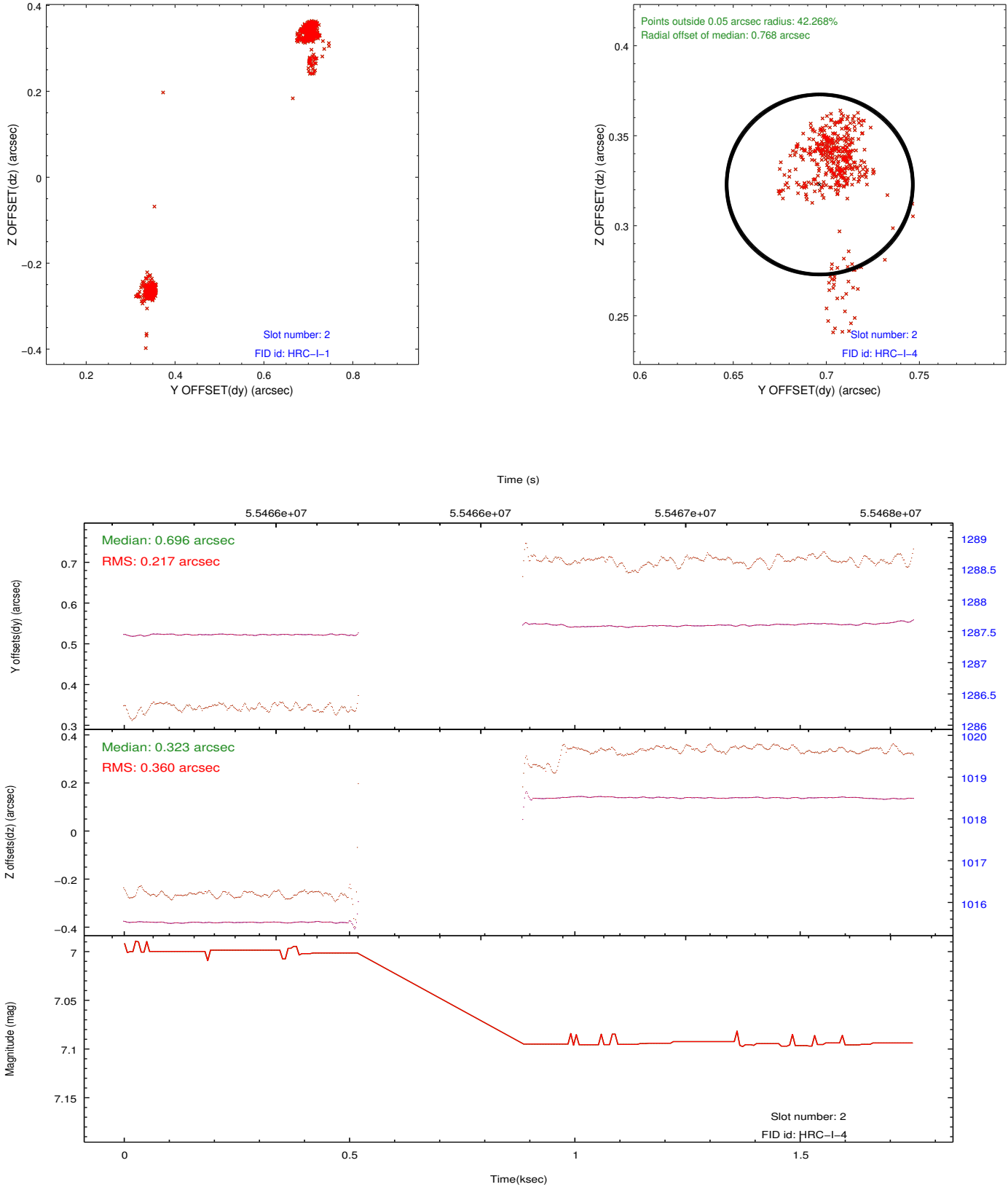
### 2.5.1 Slot 0



## 2.5.2 Slot 1



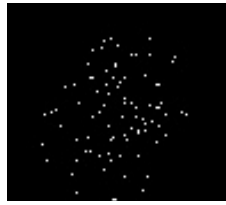
2.5.3 Slot 2





### 3 Point Sources

15.84 arcmin



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2010.01.29
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	1.286

## A.2 Comments

There is a discontinuity in the tracking of the fid lights partway through this observation. All 3 fid lights display the discontinuity. The fid lights in slots 1 and 2 were excluded from the aspect solution for this observation, leaving data from only one fid light. The use of only 1 fid light and the discontinuity in the data result in a degraded boresight alignment calibration.

====

SIM dy has 47 discontinuities > 0.200 arcsec  
SIM dz has 232 discontinuities > 0.200 arcsec

===

Charge time for this ObsId remains at original value of 1.286 ks, although with the current processing the charge time would have been 1.599 ksec.