

# V&V Reference Report

## L2 ASCDS Version : 10.1.1

Observation 15676 - L2 Version 3  
Chandra X-Ray Center

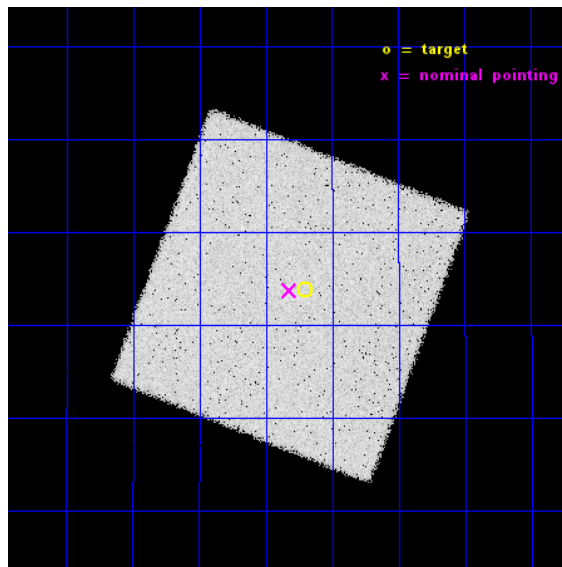
L2 Processing Date : Dec 7 2014

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# 1 Front

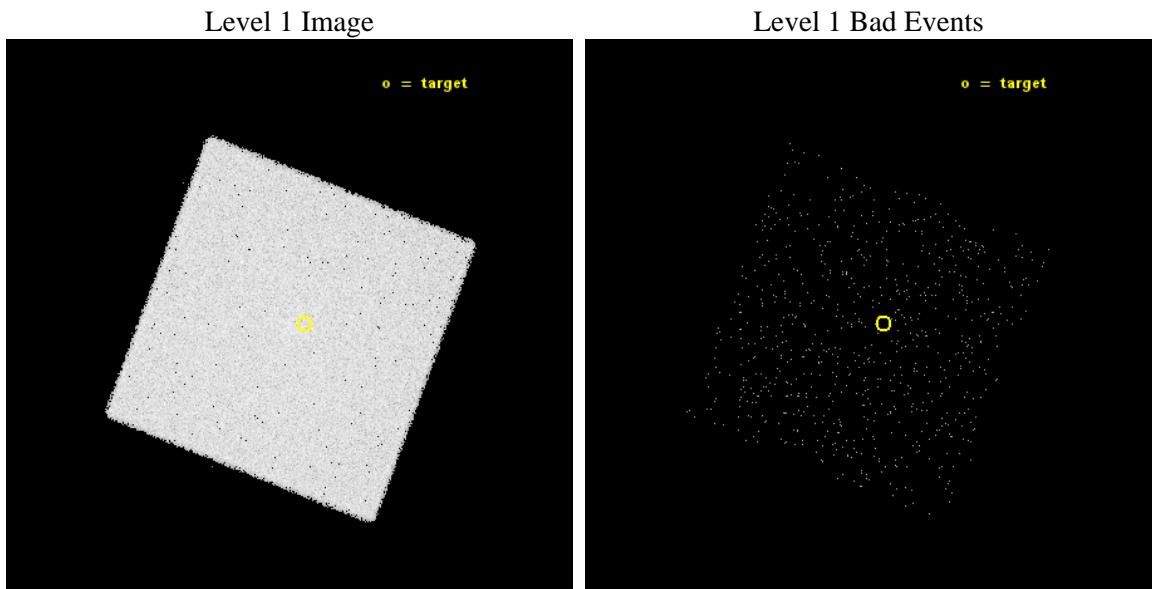
seq_num	100105	Sequence number
obs_id	15676	Observation id
title	Plumbing the Heights of the Solar Wind With Comet ISON	Proposal ti
observer	Dr. Carey Lisse	Principal investigator
object	Comet C/2012 S1 (ISON)	Source name
ra_targ	167.3	Observer's specified target RA [deg]
dec_targ	6.73	Observer's specified target Dec [deg]
ra_nom	167.33025802787	Nominal RA [deg]
dec_nom	6.7289622883402	Nominal Dec [deg]
roll_nom	66.102701327159	Nominal Roll [deg]
revision	3	Processing version of data
ontime	3075.2564184666	[s]
lvertime	3047.6038609422	Ontime multiplied by DTCOR
l2events	226959	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	3000.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	3075.2564184666	[s]
caldsver	4.6.4	&#160	l1events	314249	Number of level 1 events
date	2014-12-07T19:02:00	Date and time of file creation			
revision	3	Processing version of data			

### 2.1.3 Events

#### Level 1 Events

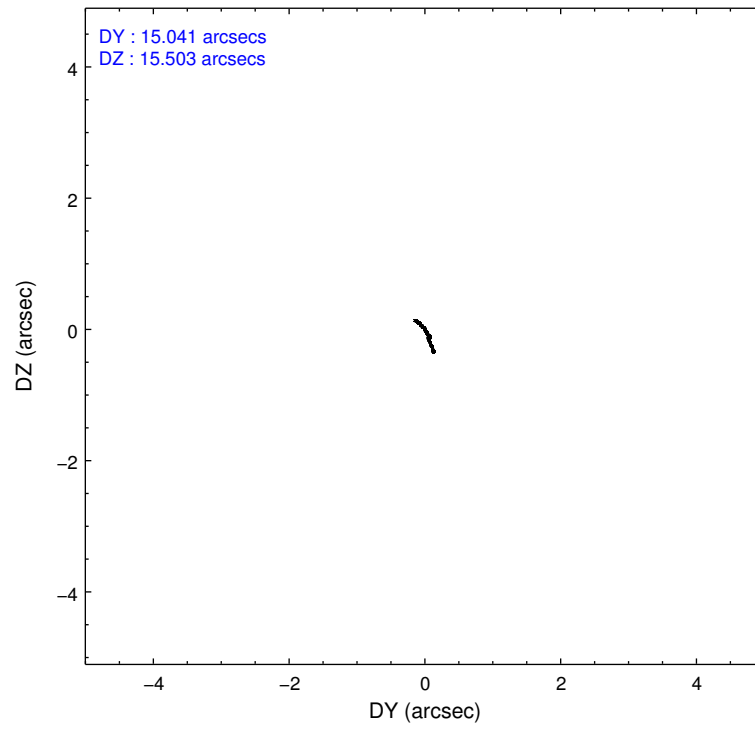
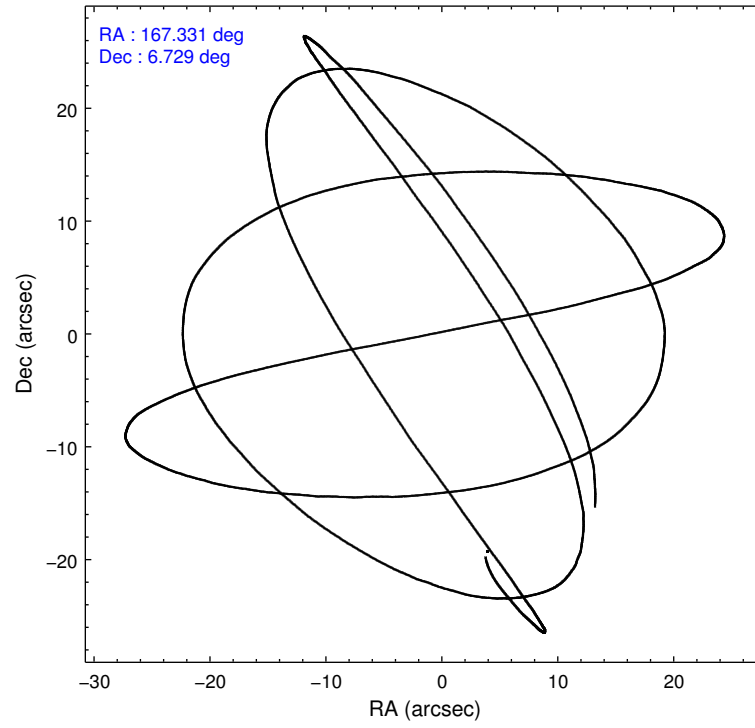
	<b>segment 0</b>
level 1 events	314249
rejected events	8998
rejected %	2%

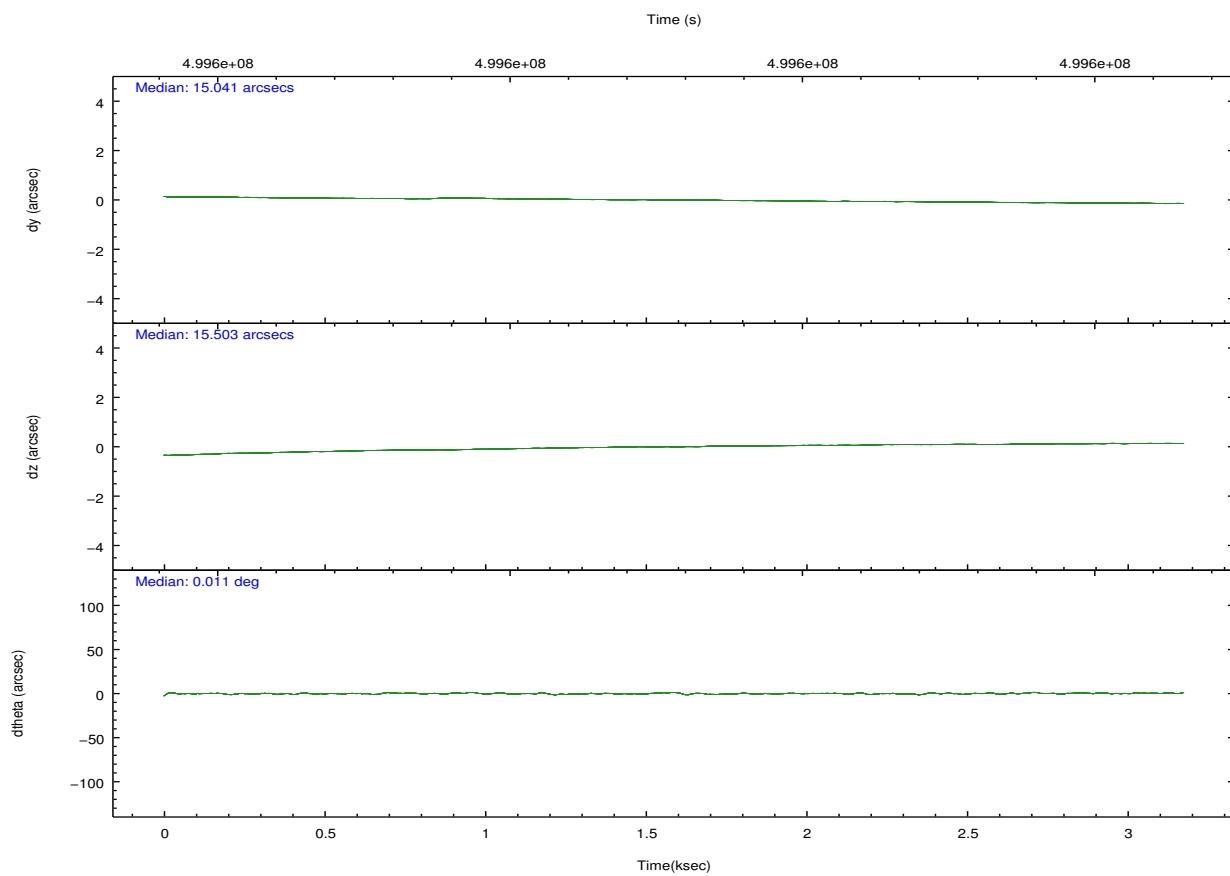
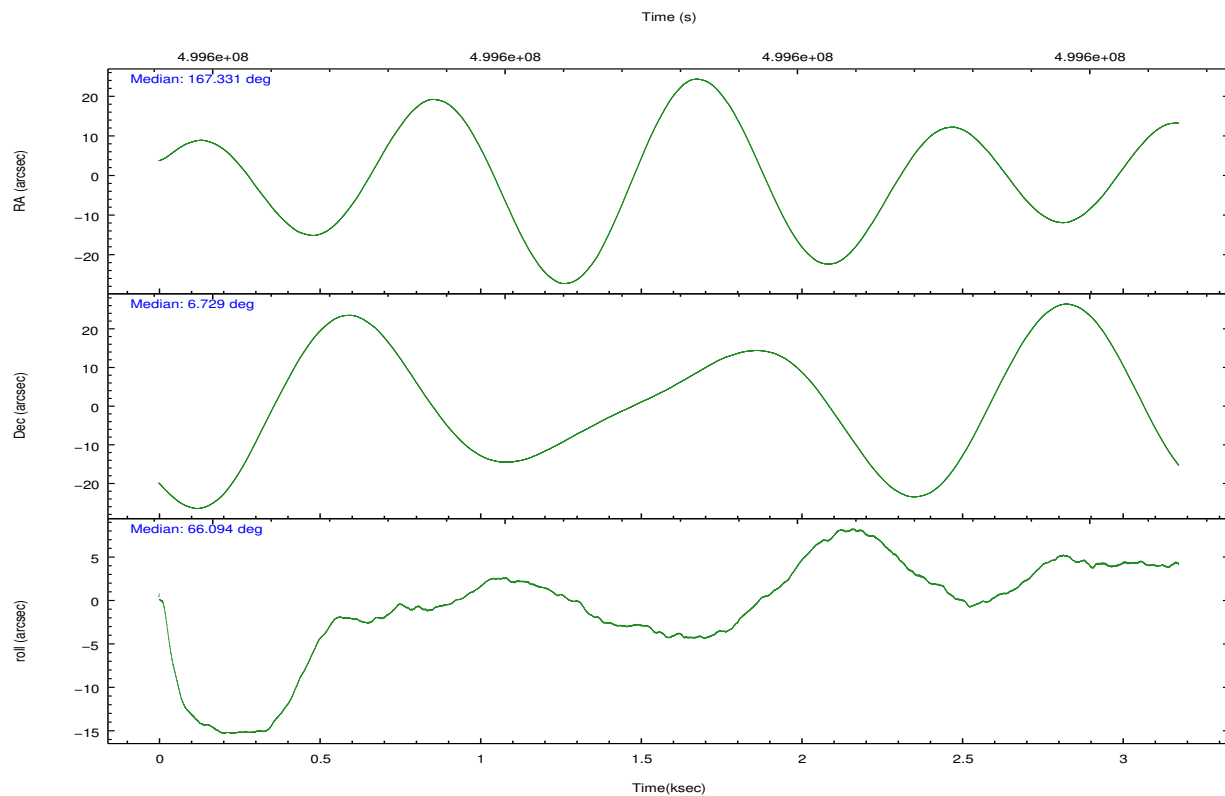
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	HRC	HRC
Detector	HRC-I	HRC-I
Grating	NONE	NONE
Data mode	OBSERVING	OBSERVING
Observation mode	POINTING	POINTING
[deg] Pointing RA	167.333622	167.3302580278725
[deg] Pointing Dec	6.701957	6.728962288340215
[deg] Pointing Roll	66.197788	66.10270132715863
[mm] SIM focus pos	-1.040293	-1.038866356238299
[mm] SIM defocus	0	0.001426264420575141
[mm] SIM translation stage pos	126.985494	126.9804656746847
[mm] SIM translation stage offset	0	0.005023216916882234
[s] Observation start time (MET)	499595150.184000	499594724.30189
Observation start date	2013-10-31T08:24:43	2013-10-31T08:18:44
[s] Observation end time (MET)	499598150.184000	499599032.37713
Observation end date	2013-10-31T09:14:43	2013-10-31T09:30:32

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

## 2.3 Aspect





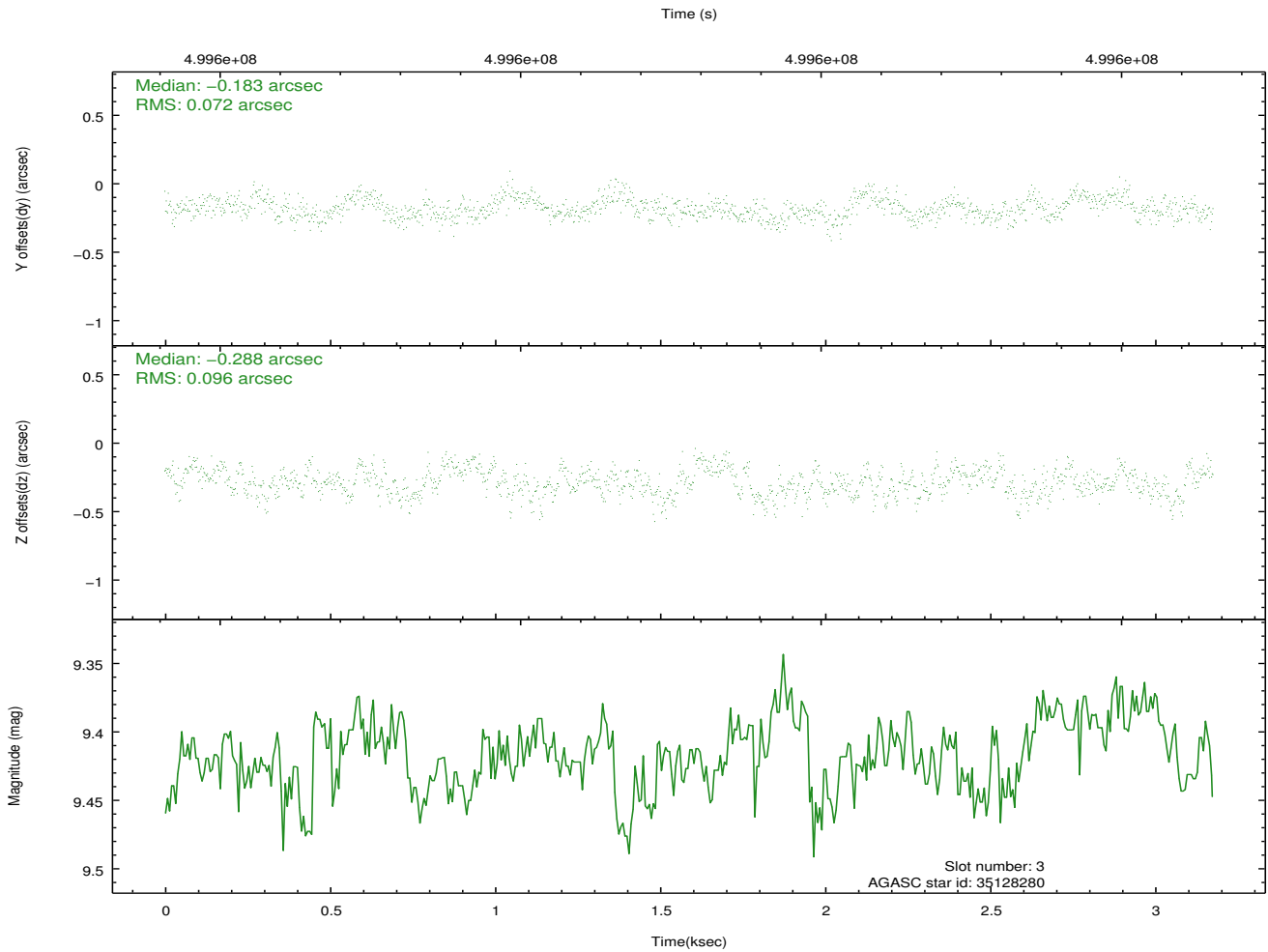
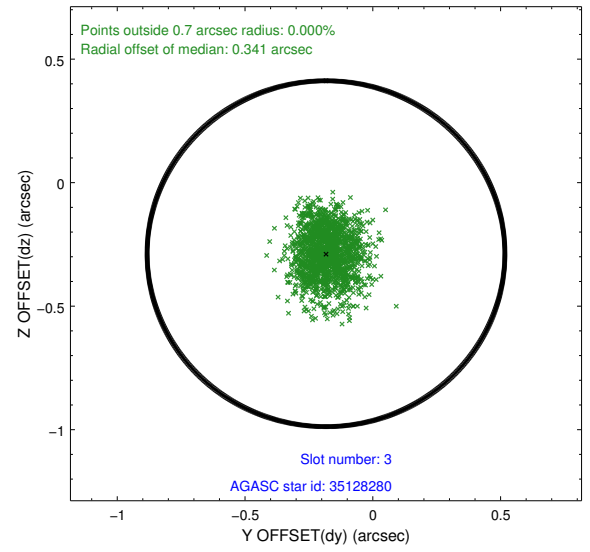
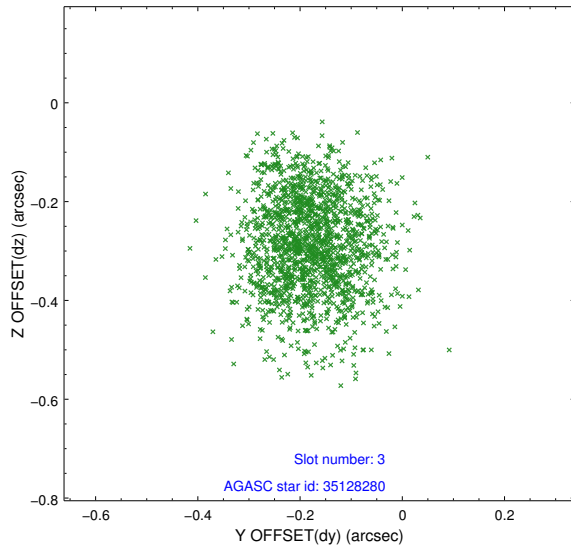
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		HRC-I-1	6.95	775	-0.154	-0.069	0.007	0.011	0.000000	0.000000	-771.05	-1303.55
1	FID		HRC-I-2	7.00	775	0.198	-0.042	0.008	0.015	0.000000	0.000000	840.94	-1306.84
2	FID		HRC-I-4	6.97	775	0.072	0.018	0.006	0.010	0.000000	0.000000	1273.16	996.93
3	GUIDE	used	35128280	9.42	1549	-0.183	-0.288	0.127	0.210	167.246023	6.904426	540.21	581.44
4	GUIDE	used	35129704	9.39	1549	0.240	0.114	0.145	0.234	167.497145	6.165570	-1529.92	-1313.77
5	GUIDE	used	35260640	9.07	1549	0.140	0.021	0.118	0.188	167.546632	6.305790	-998.26	-1272.54
6	GUIDE	used	35260712	9.16	1550	-0.250	0.232	0.115	0.179	167.955262	6.654148	740.27	-2102.12
7	GUIDE	used	35129752	10.12	1546	0.045	-0.082	0.208	0.331	166.831812	6.353286	-1871.99	1135.81

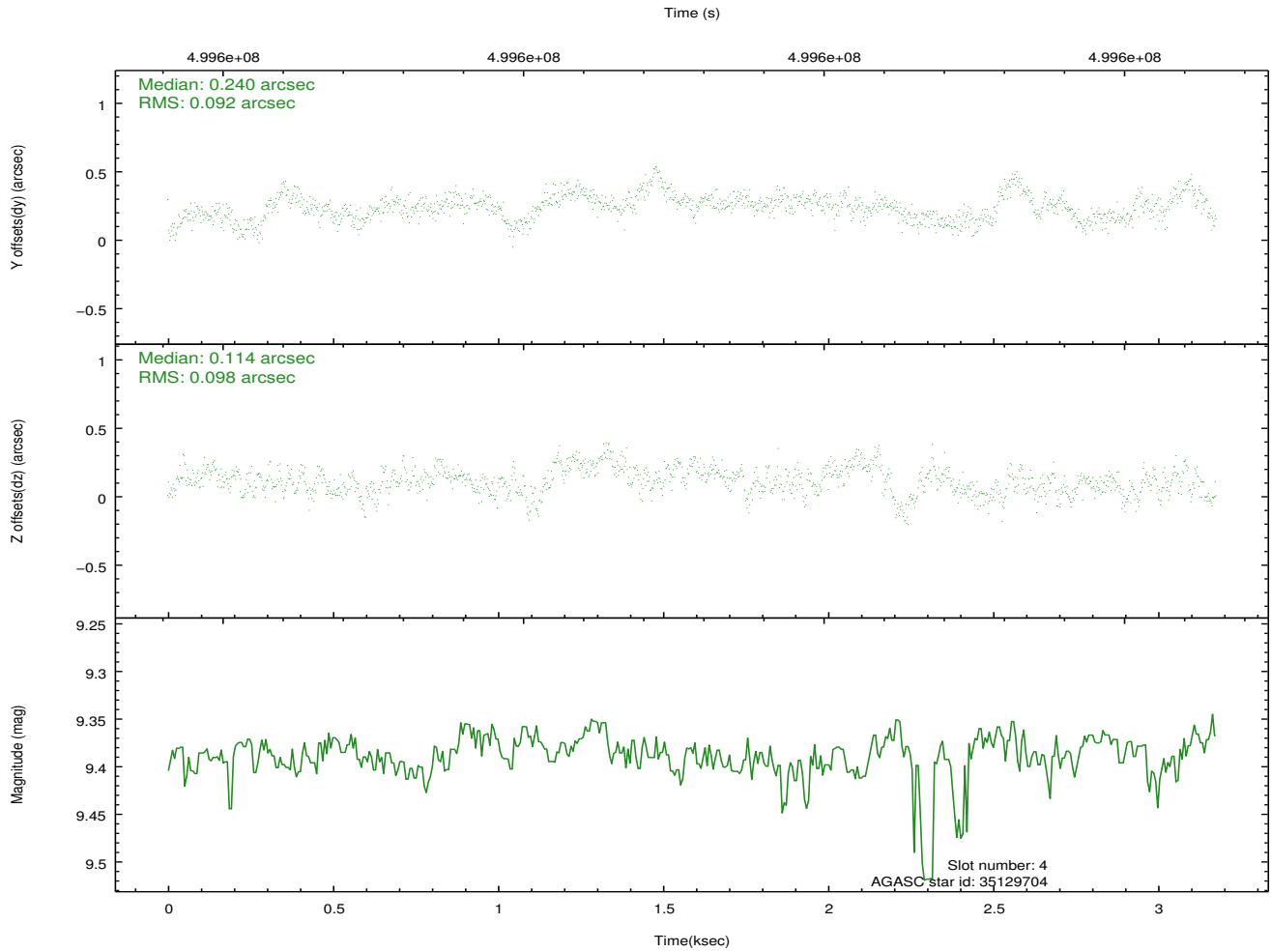
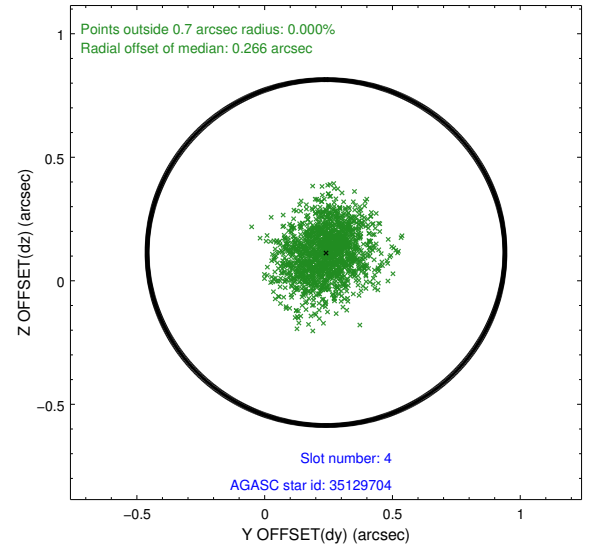
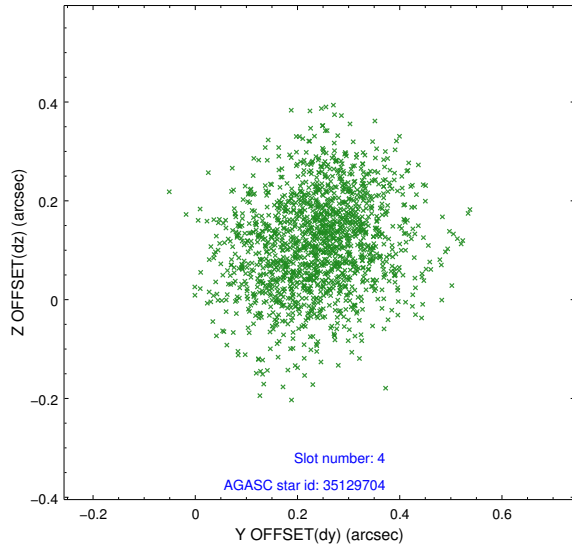


## 2.4 Star Slots

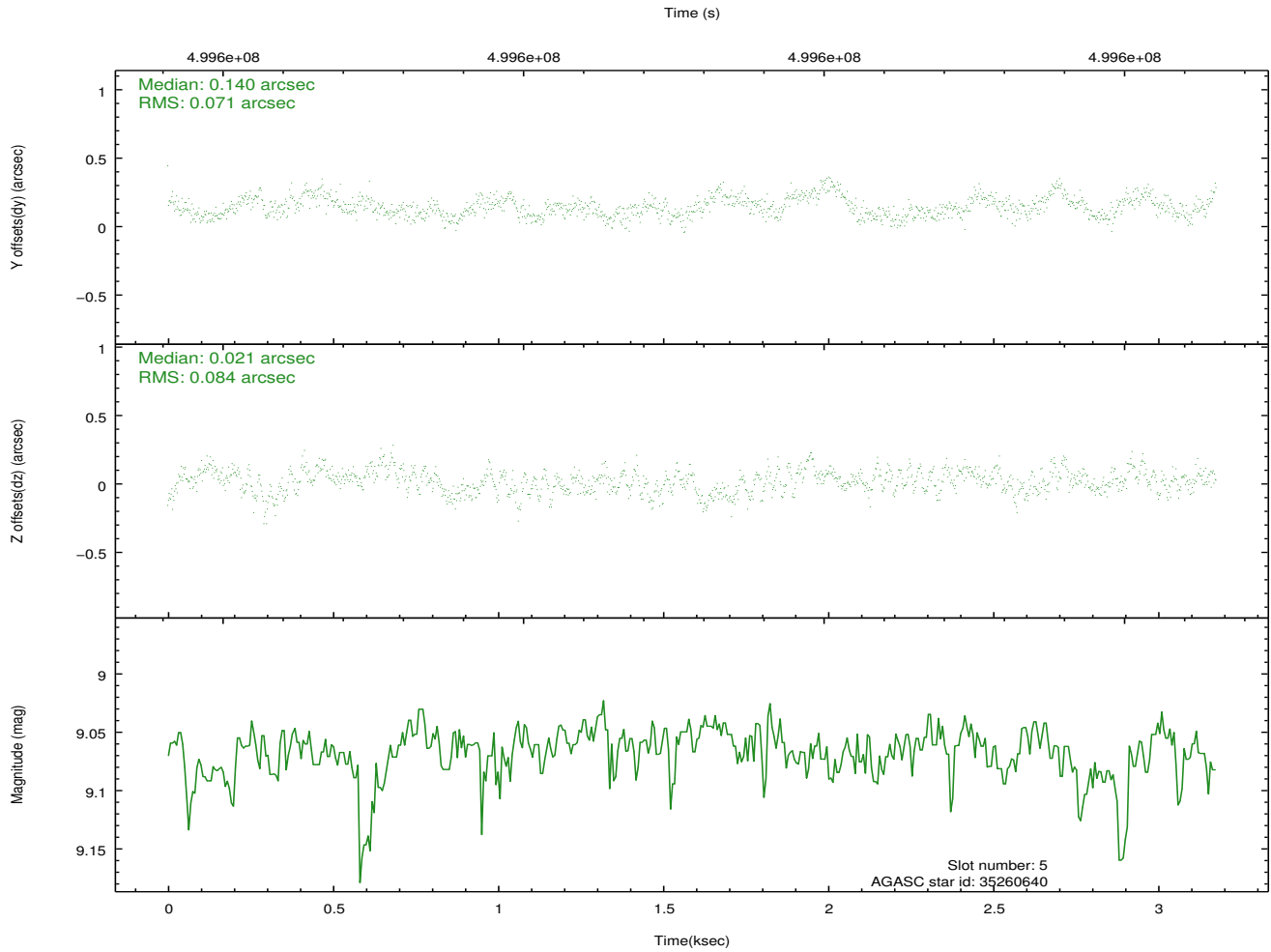
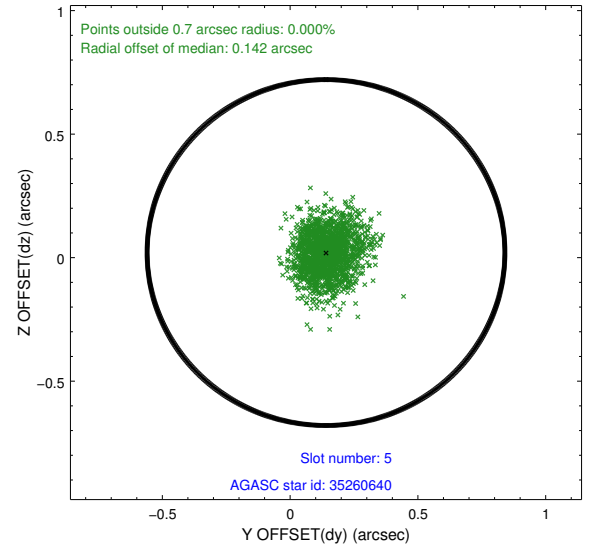
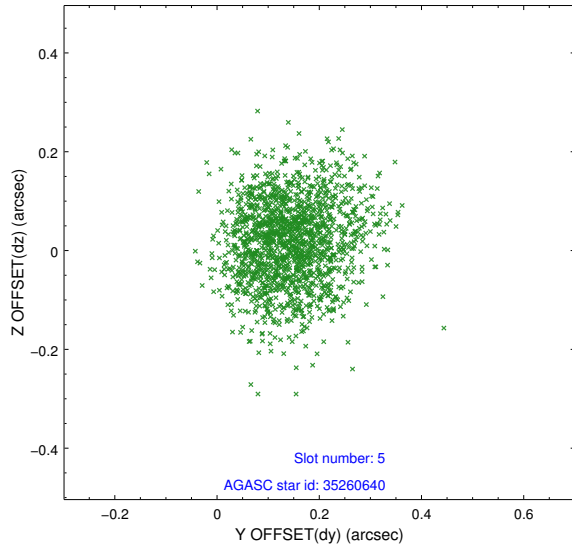
### 2.4.1 Slot 3



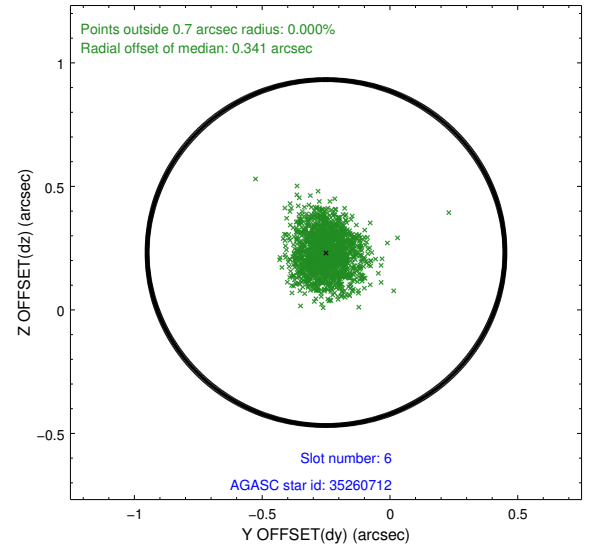
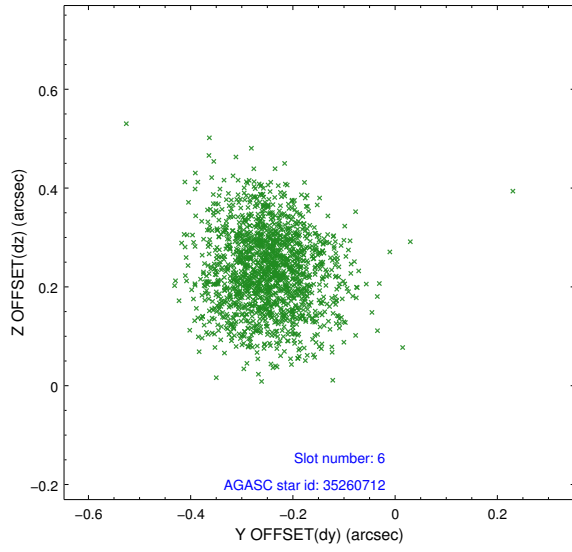
## 2.4.2 Slot 4



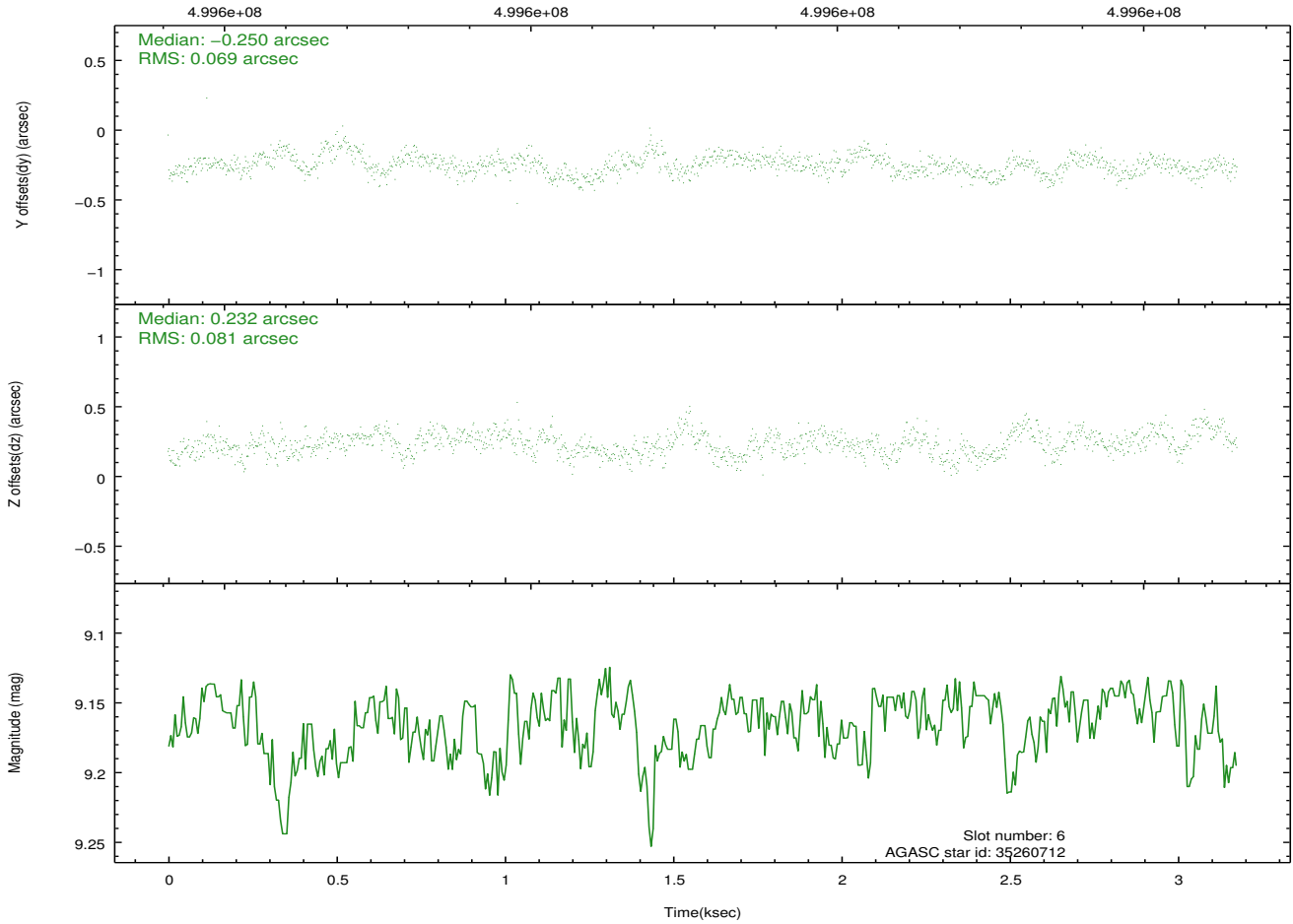
### 2.4.3 Slot 5



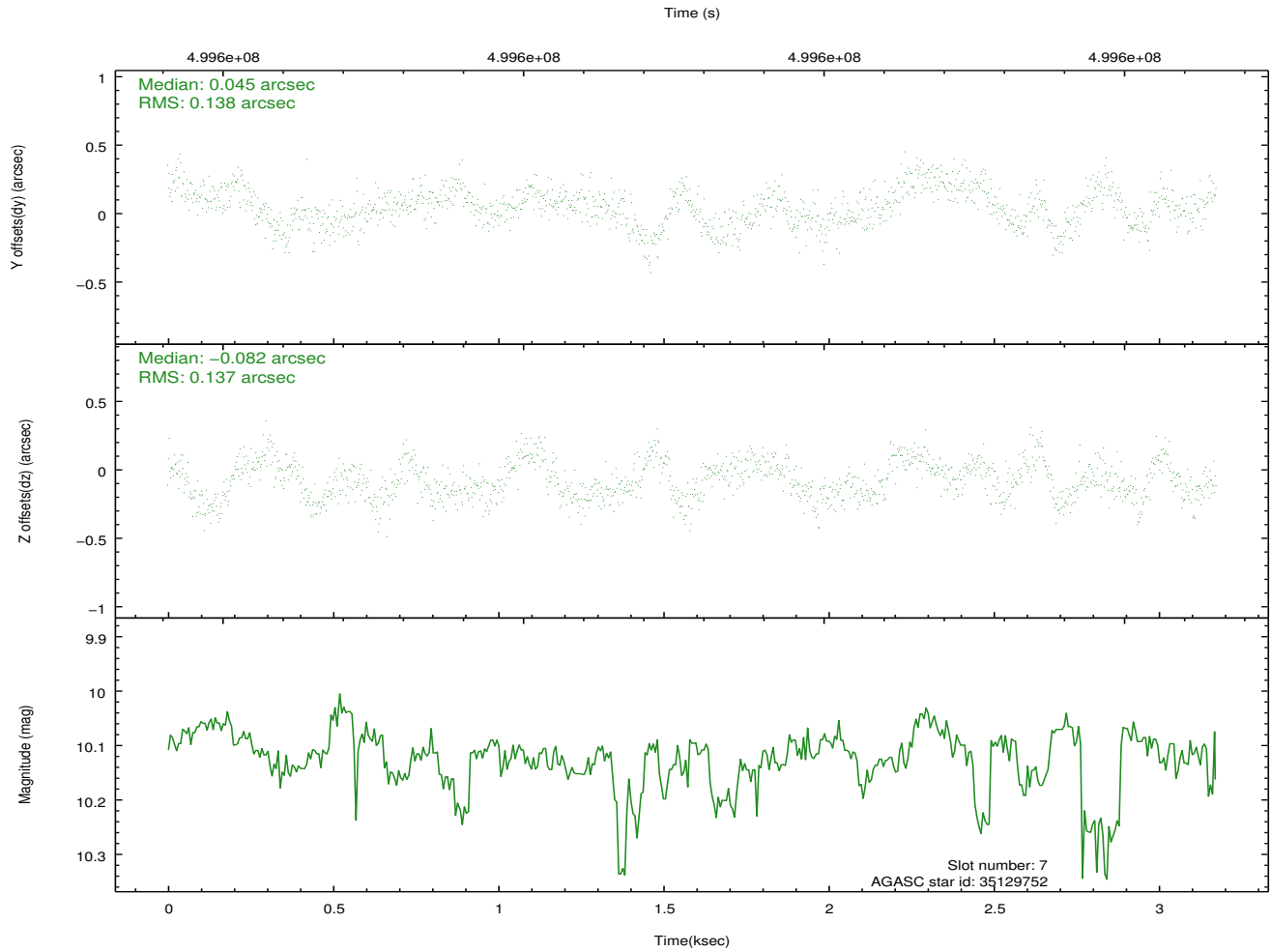
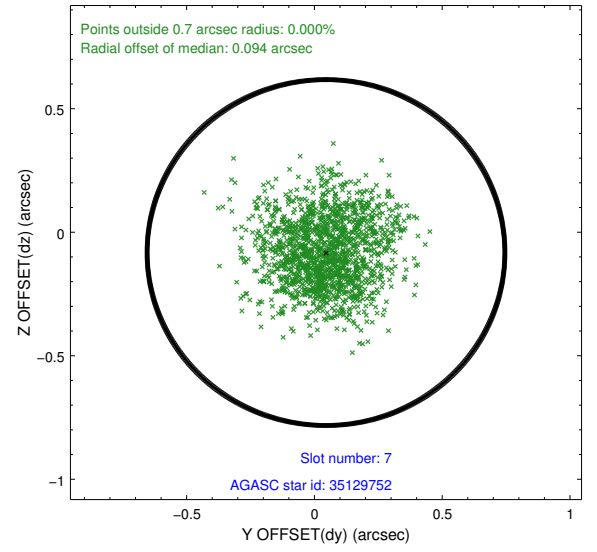
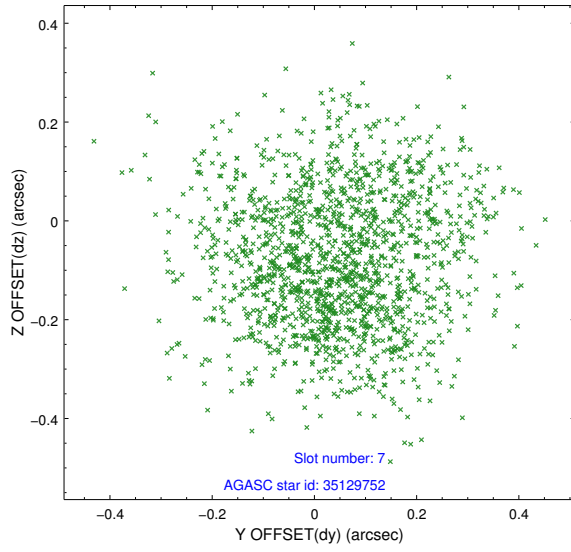
## 2.4.4 Slot 6



Time (s)

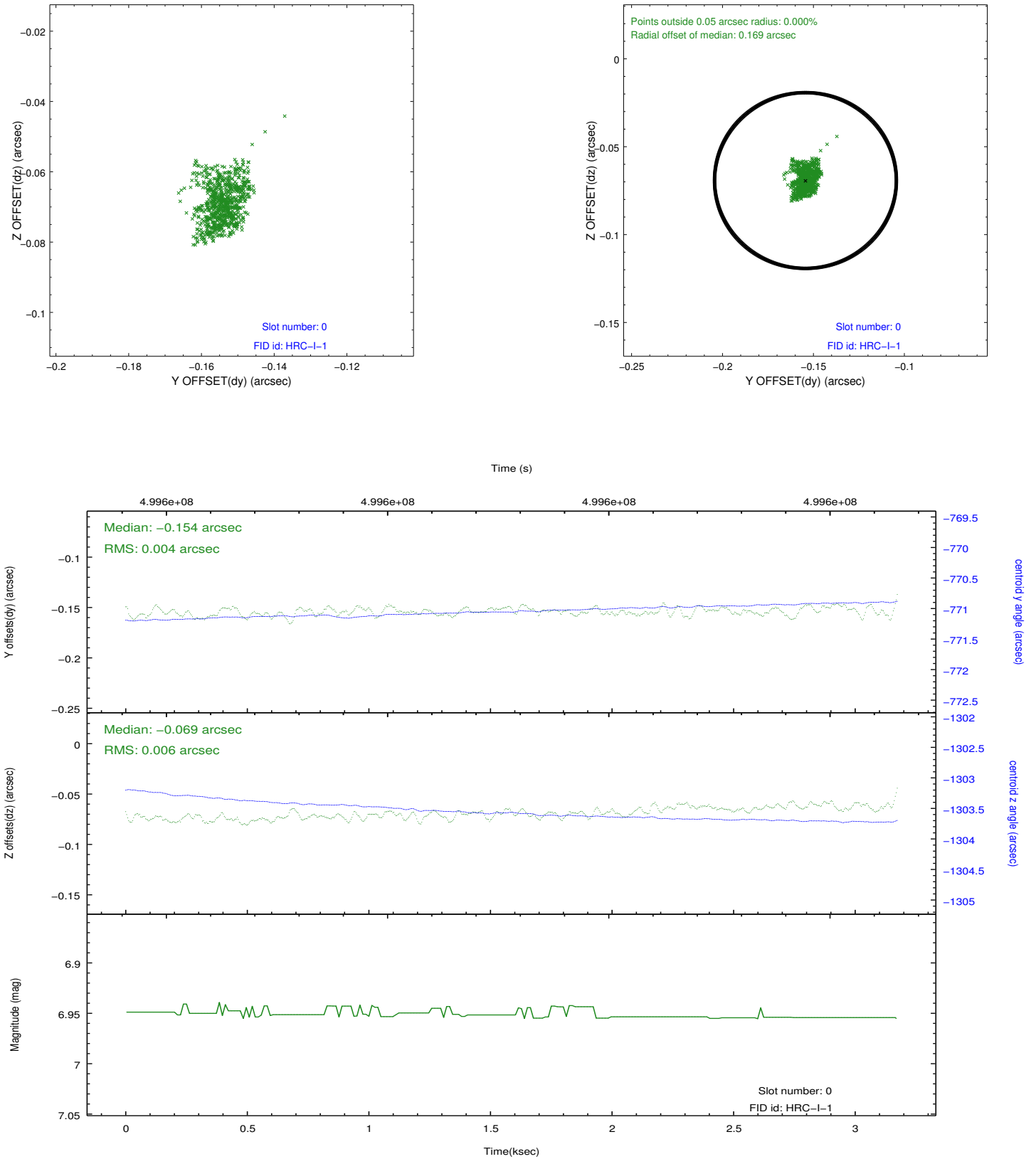


## 2.4.5 Slot 7

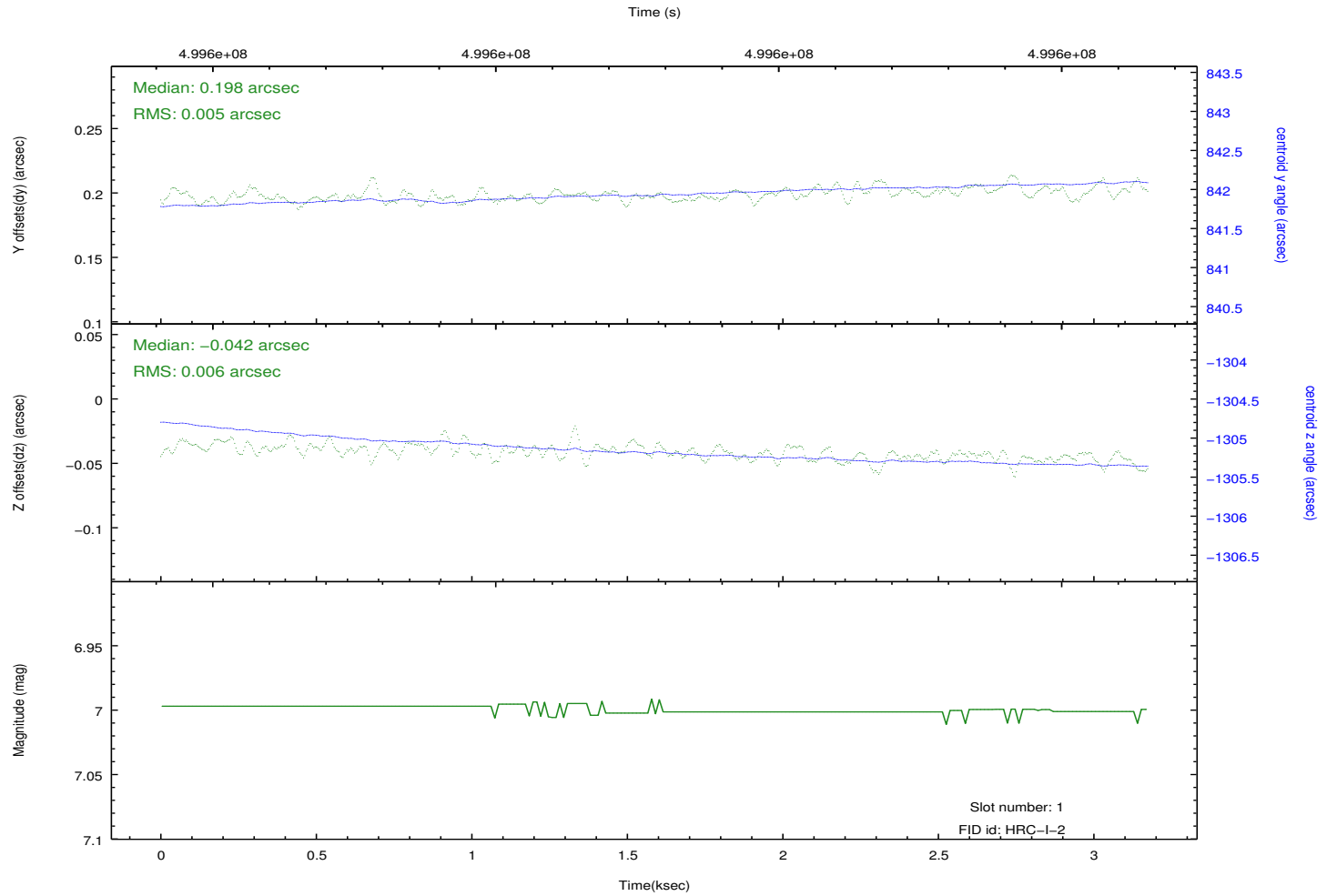
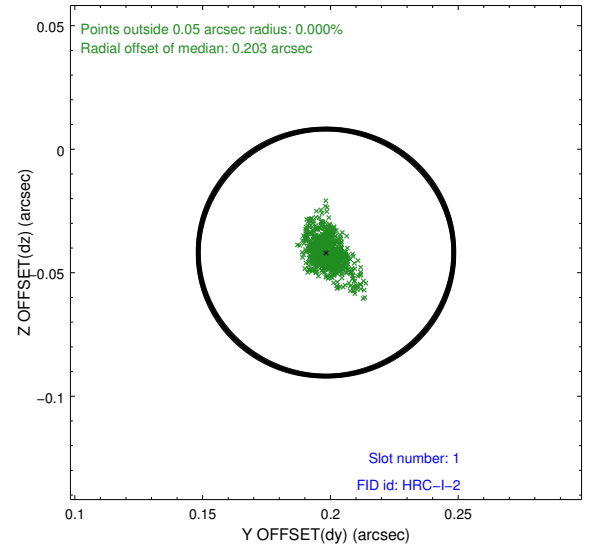
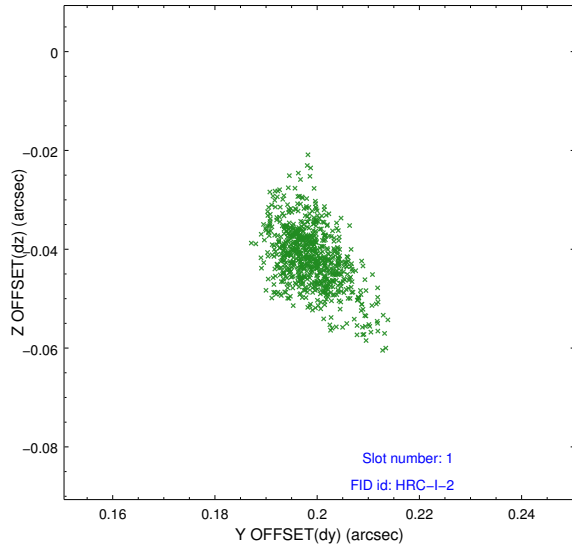


## 2.5 FID Slots

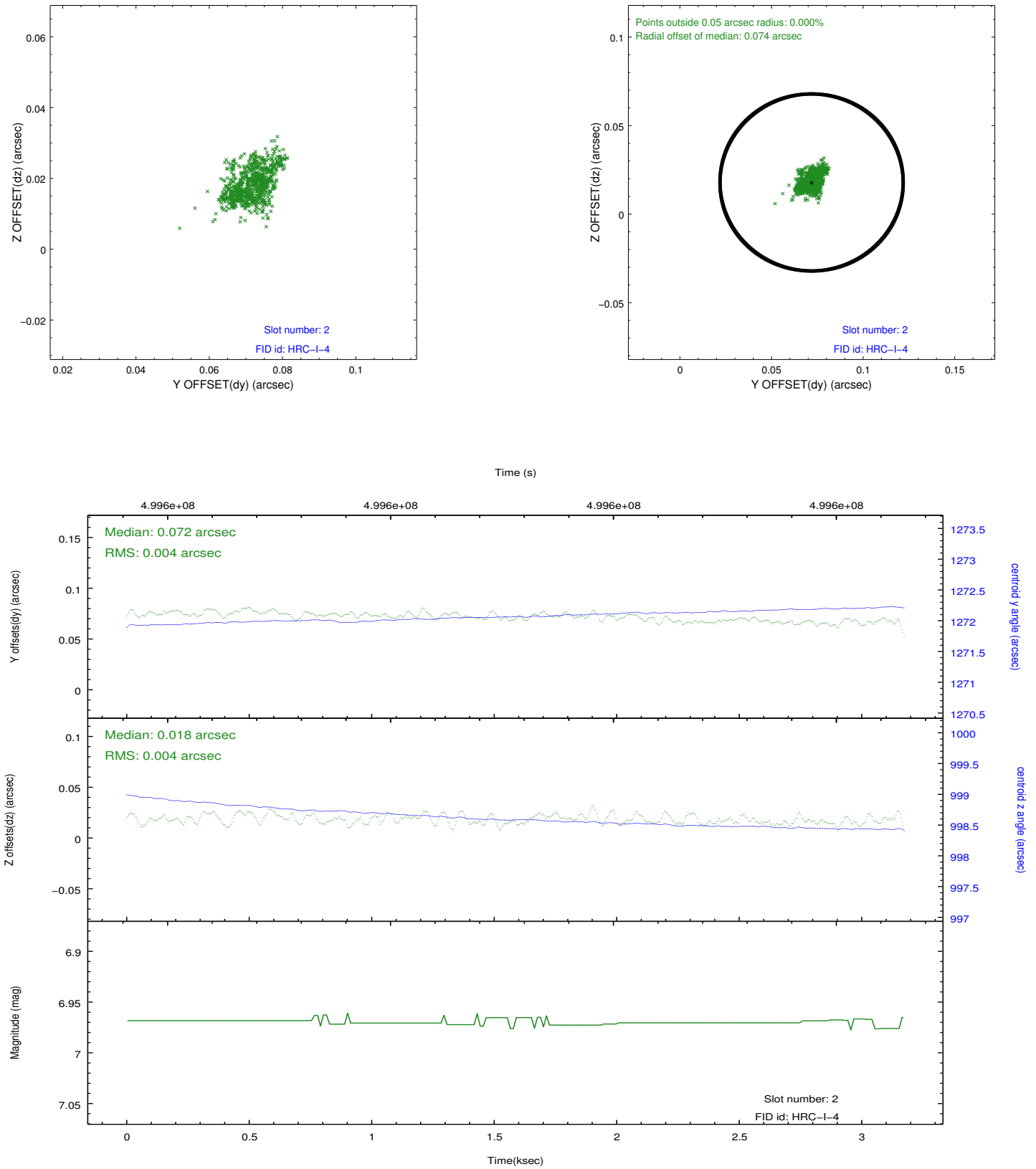
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2





# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2014.12.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	3.0752564184666

## A.2 Comments

This is a moving target. Users will need to run `sso_freeze` or similar software to position the events in the reference frame of the target.

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These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.