

# V&V Reference Report

## L2 ASCDS Version : 10.4.3.1

Observation 16363 - L2 Version 1  
Chandra X-Ray Center

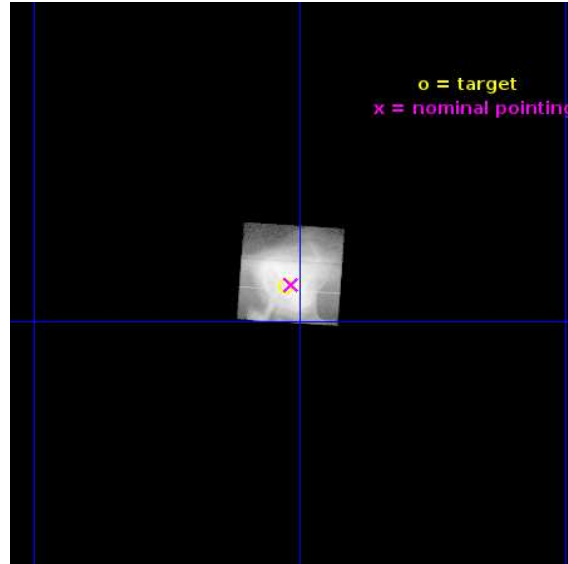
L2 Processing Date : Jan 31 2016

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# 1 Front

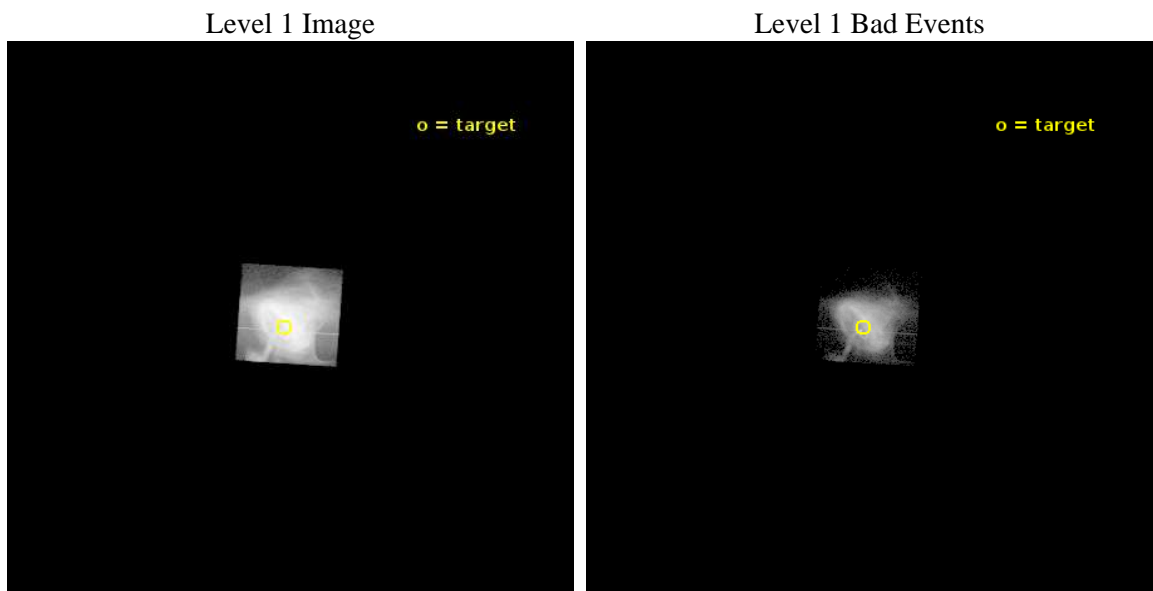
seq_num	502261	Sequence number
obs_id	16363	Observation id
title	Joint Chandra and HST Monitoring and Studies of the Crab Nebula	Pr
observer	Dr. Martin Weisskopf	Principal investigator
object	Crab	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	83.631667	Observer's specified target RA [deg]
dec_targ	22.015667	Observer's specified target Dec [deg]
ra_nom	83.62879957247	Nominal RA [deg]
dec_nom	22.016666991354	Nominal Dec [deg]
roll_nom	273.95699584126	Nominal Roll [deg]
revision	1	Processing version of data
ontime	8795.6139874458	Sum of GTIs [s]
livetime	1441.9984896462	Livetime [s]
ontime7	8795.6139874458	Sum of GTIs [s]
l2events	3533991	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	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	8795.6139874458	Sum of GTIs [s]
caldbver	4.7.0	&#160	ontime7	8795.6139874458	Sum of GTIs [s]
date	2016-01-31T14:14:12	Date and time of file creation	l1events	3893235	Number of level 1 events
revision	1	Processing version of data			

### 2.1.3 Events

	<b>ccd 7</b>
level 1 events	3893235
rejected events	330212
rejected %	8%

	<b>ccd 7</b>
grade 0 events	761722
	19%
grade 1 events	35282
	0%
grade 2 events	1043800
	26%
grade 3 events	366051
	9%
grade 4 events	363597
	9%
grade 5 events	114224
	2%
grade 6 events	1028875
	26%
grade 7 events	179684
	4%

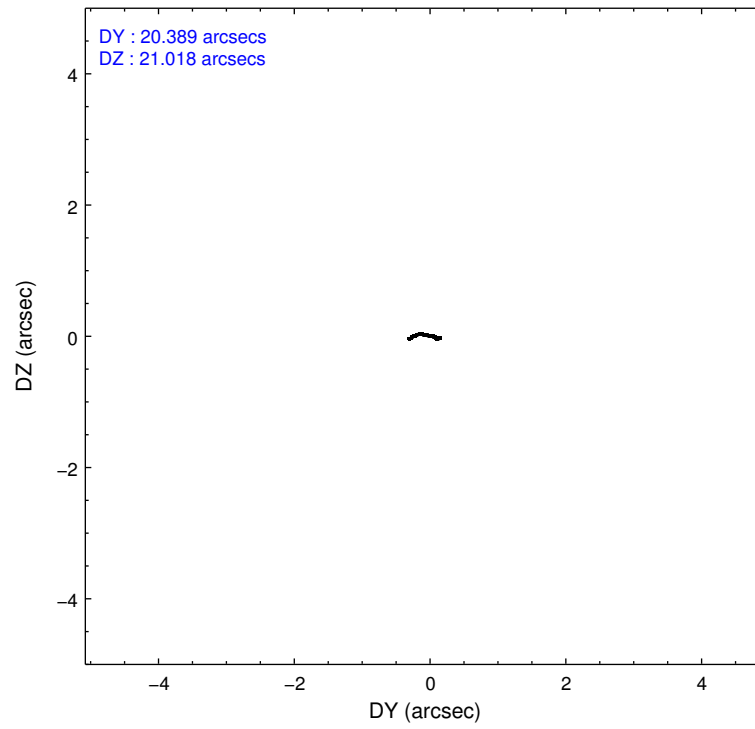
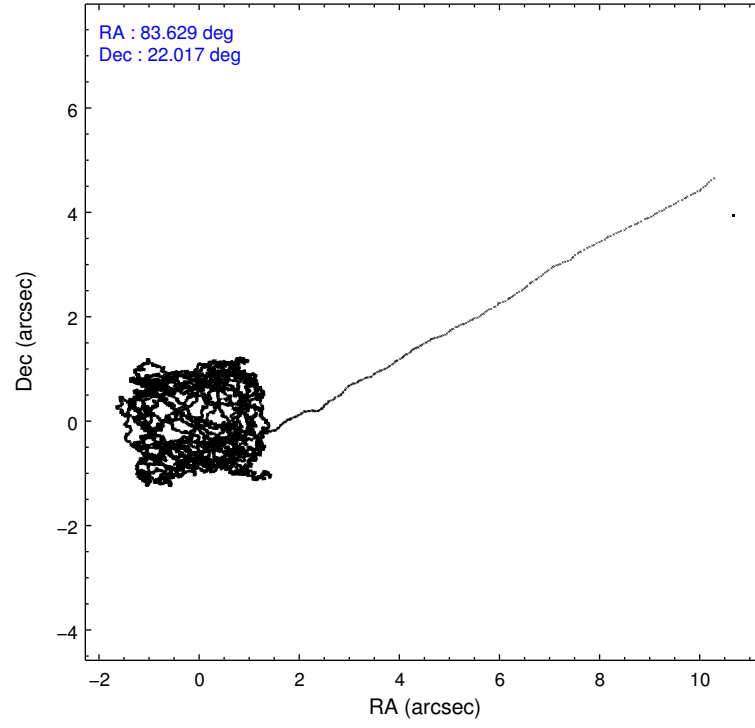


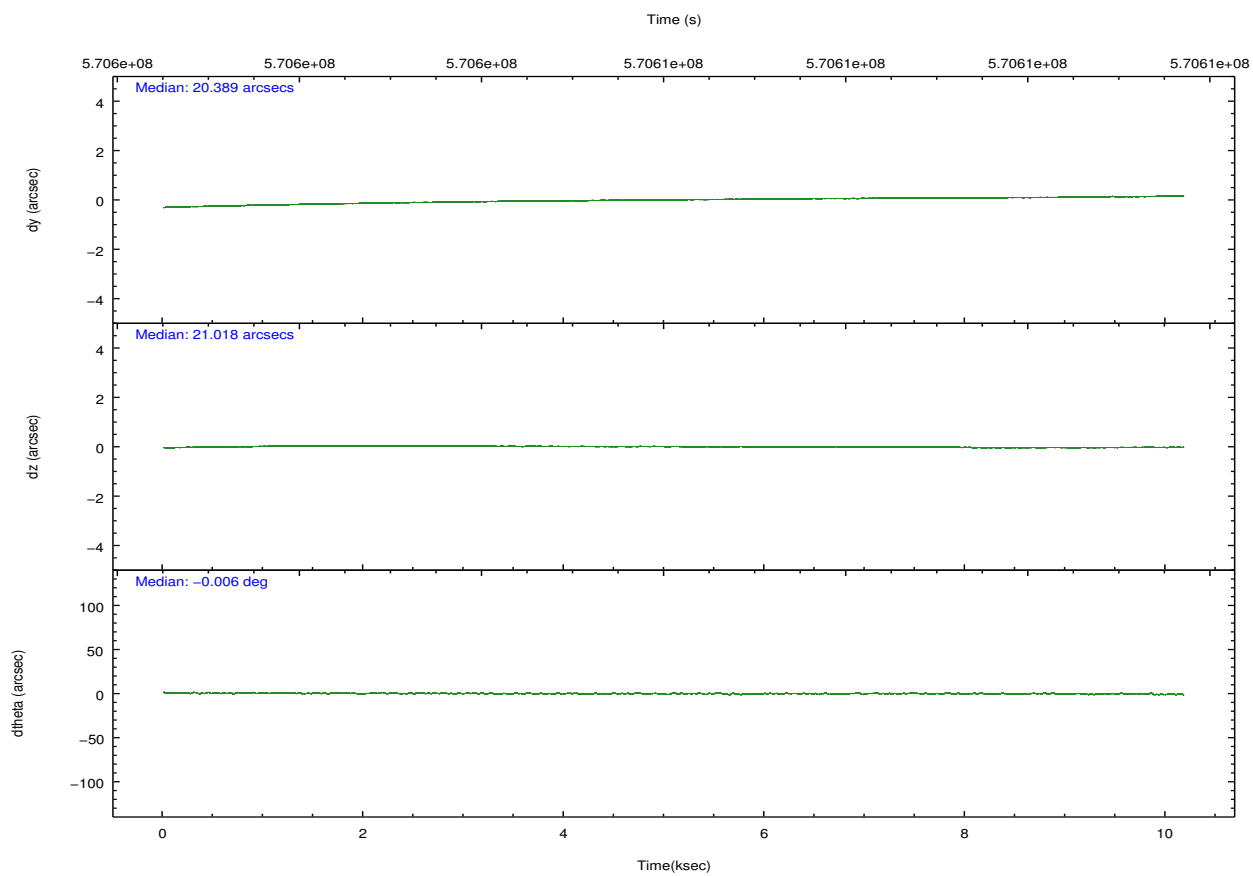
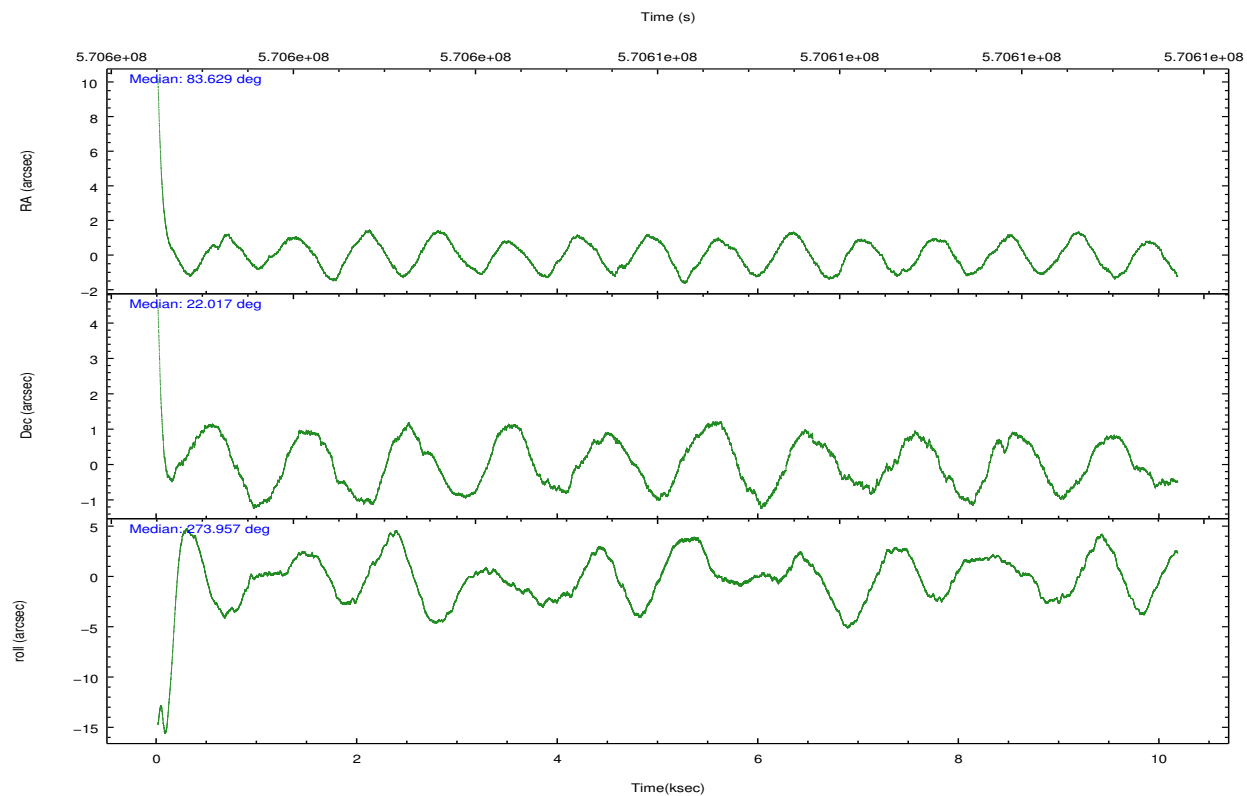
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-7	ACIS-7
Grating	NONE	NONE
Data mode	GRADED	GRADED
Observation mode	POINTING	POINTING
[deg] Pointing RA	83.611913	83.62879957246987
[deg] Pointing Dec	22.039227	22.01666699135352
[deg] Pointing Roll	273.806696	273.9569958412625
[s] Window start time (MET)	569203268.184000	569203268.184000
[s] Window stop time (MET)	571017668.184000	571017668.184000
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-194.792523	-194.7865207271548
[mm] SIM translation stage offset	4.66	4.653998144146954
[s] Observation start time (MET)	570601212.184000	570600359.7003599
Observation start date	2016-01-31T04:19:04	2016-01-31T04:05:59
[s] Observation end time (MET)	570611212.184000	570612397.3010499
Observation end date	2016-01-31T07:05:44	2016-01-31T07:26:37
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	CUSTOM	CUSTOM
Subarray start row	515	515
Subarray row count	320	320
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	0.2

## 2.3 Aspect



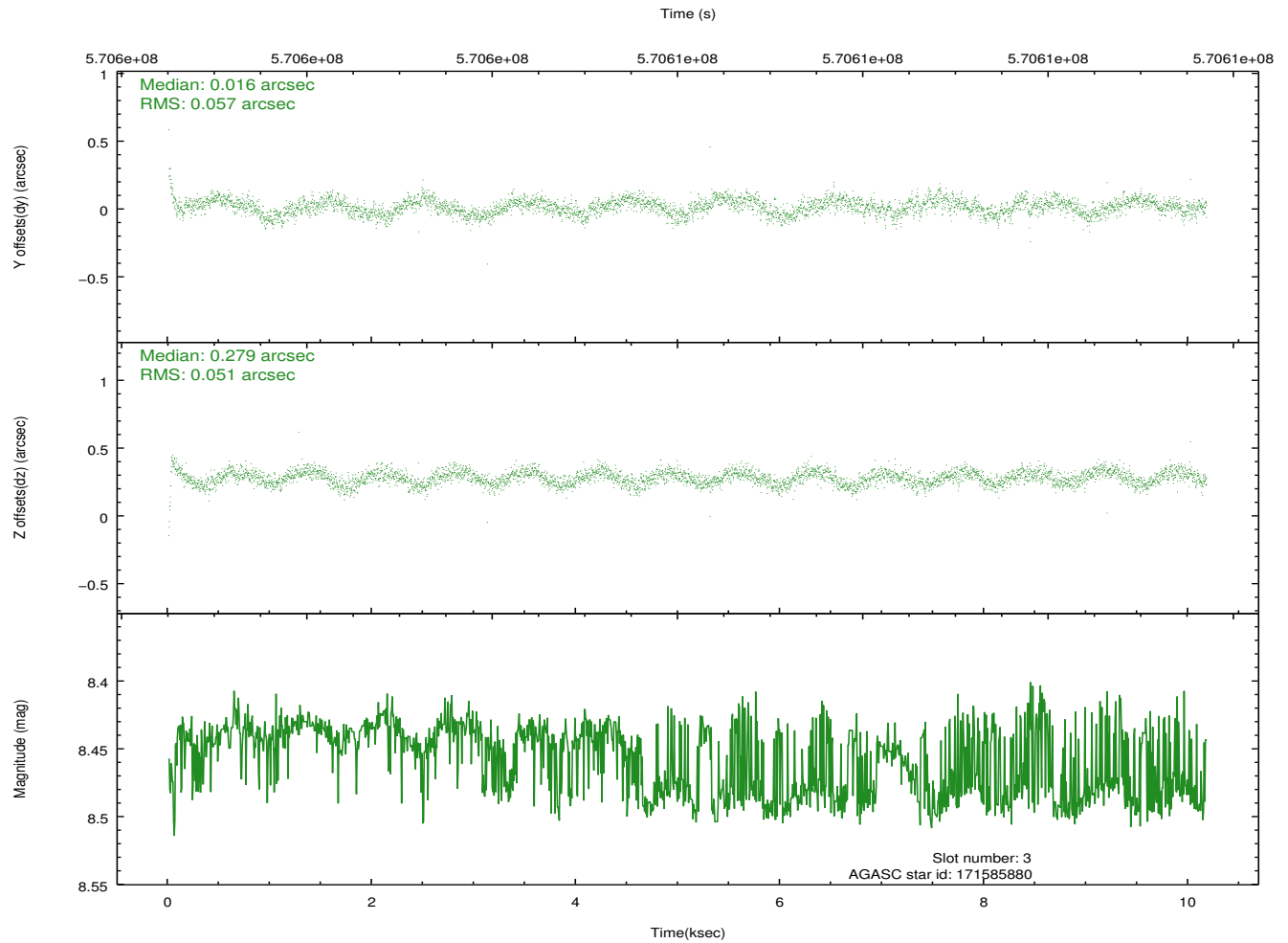
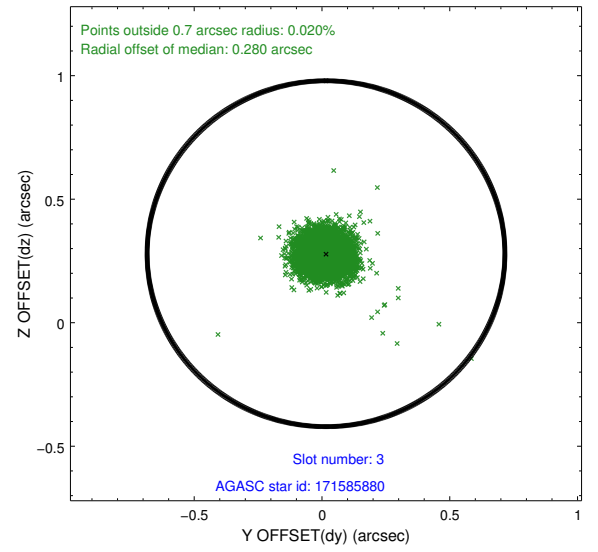
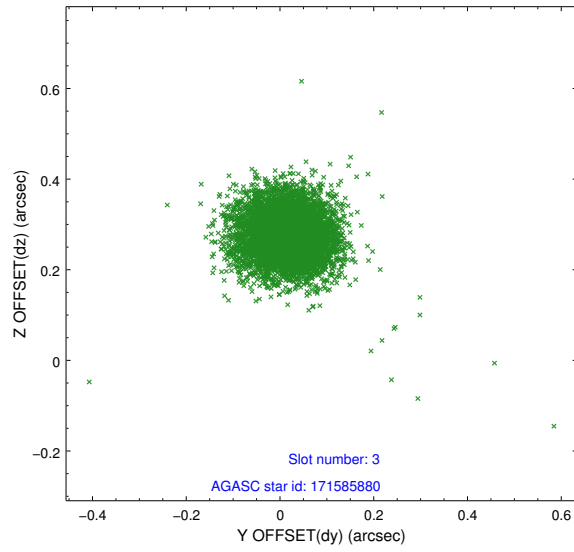


### Slot Statistics

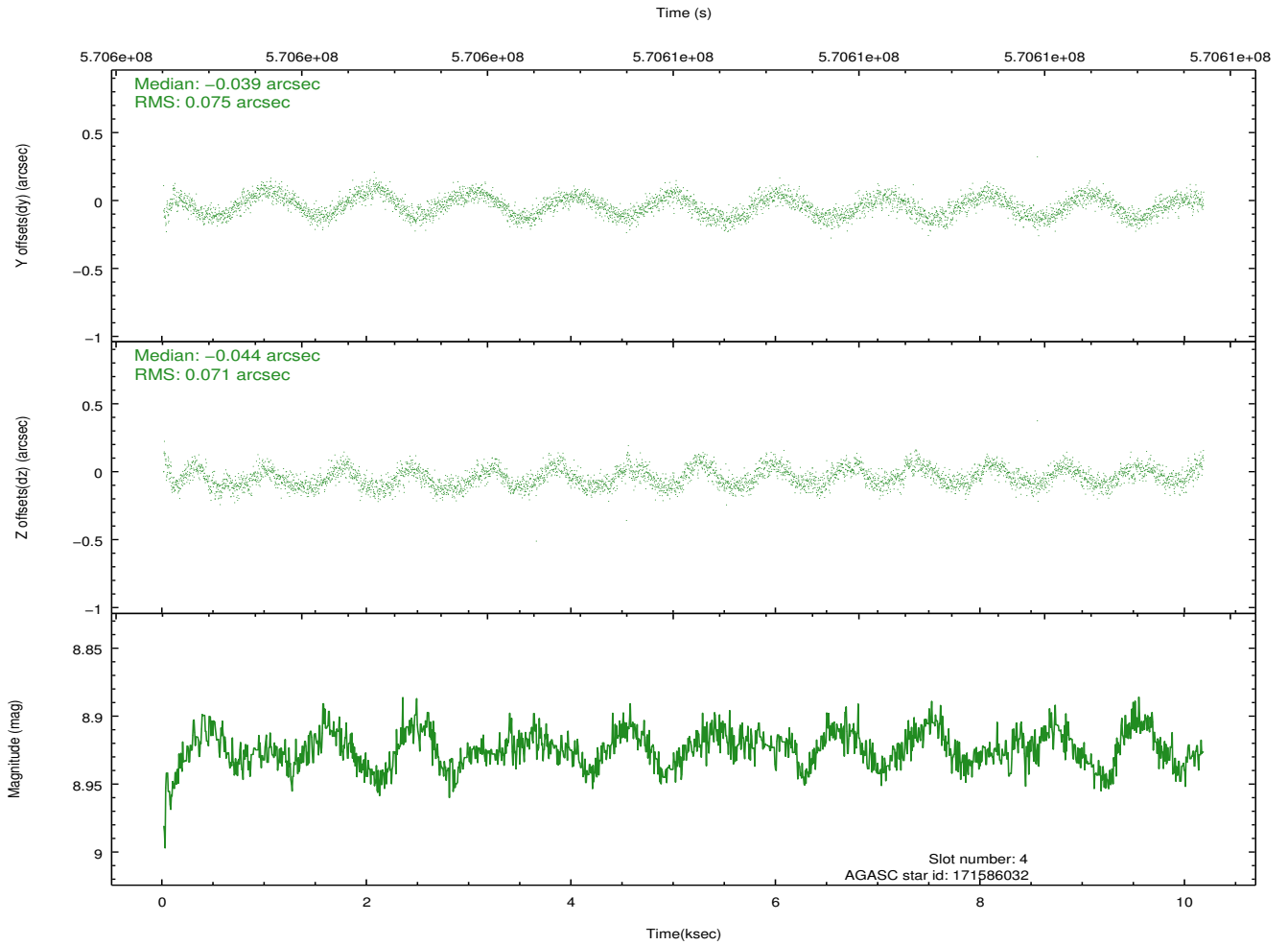
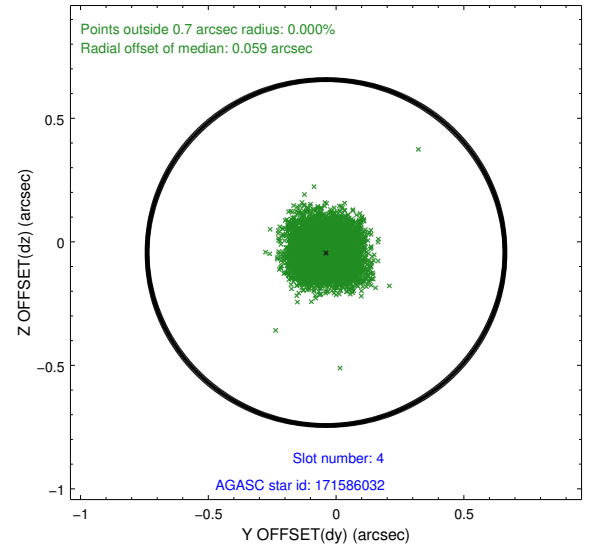
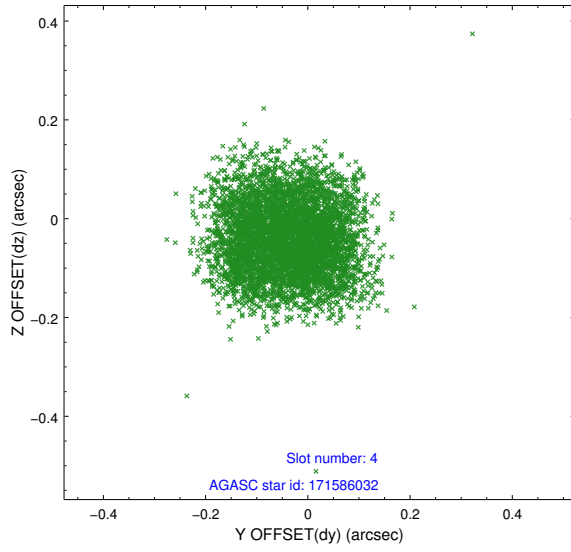
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.13	2481	-0.221	-0.019	0.008	0.014	0.000000	0.000000	-773.94	-1646.82
1	FID		ACIS-S-4	7.25	2481	0.492	0.112	0.006	0.011	0.000000	0.000000	2139.74	261.40
2	FID		ACIS-S-5	7.25	2481	-0.302	-0.084	0.008	0.013	0.000000	0.000000	-1826.27	255.33
3	GUIDE	used	171585880	8.45	4958	0.016	0.279	0.079	0.127	83.676260	22.176319	-477.79	247.52
4	GUIDE	used	171586032	8.92	4958	-0.039	-0.044	0.112	0.170	83.950197	22.083225	-84.06	1137.03
5	GUIDE	used	171721904	9.25	4956	-0.105	0.228	0.091	0.154	84.272676	22.116922	-137.22	2218.62
6	GUIDE	used	243941560	8.34	4959	-0.045	-0.160	0.071	0.118	83.733264	22.568598	-1874.28	529.57
7	GUIDE	used	171597832	9.21	4954	0.174	-0.309	0.105	0.174	83.183230	21.366702	2318.62	-1594.49

## 2.4 Star Slots

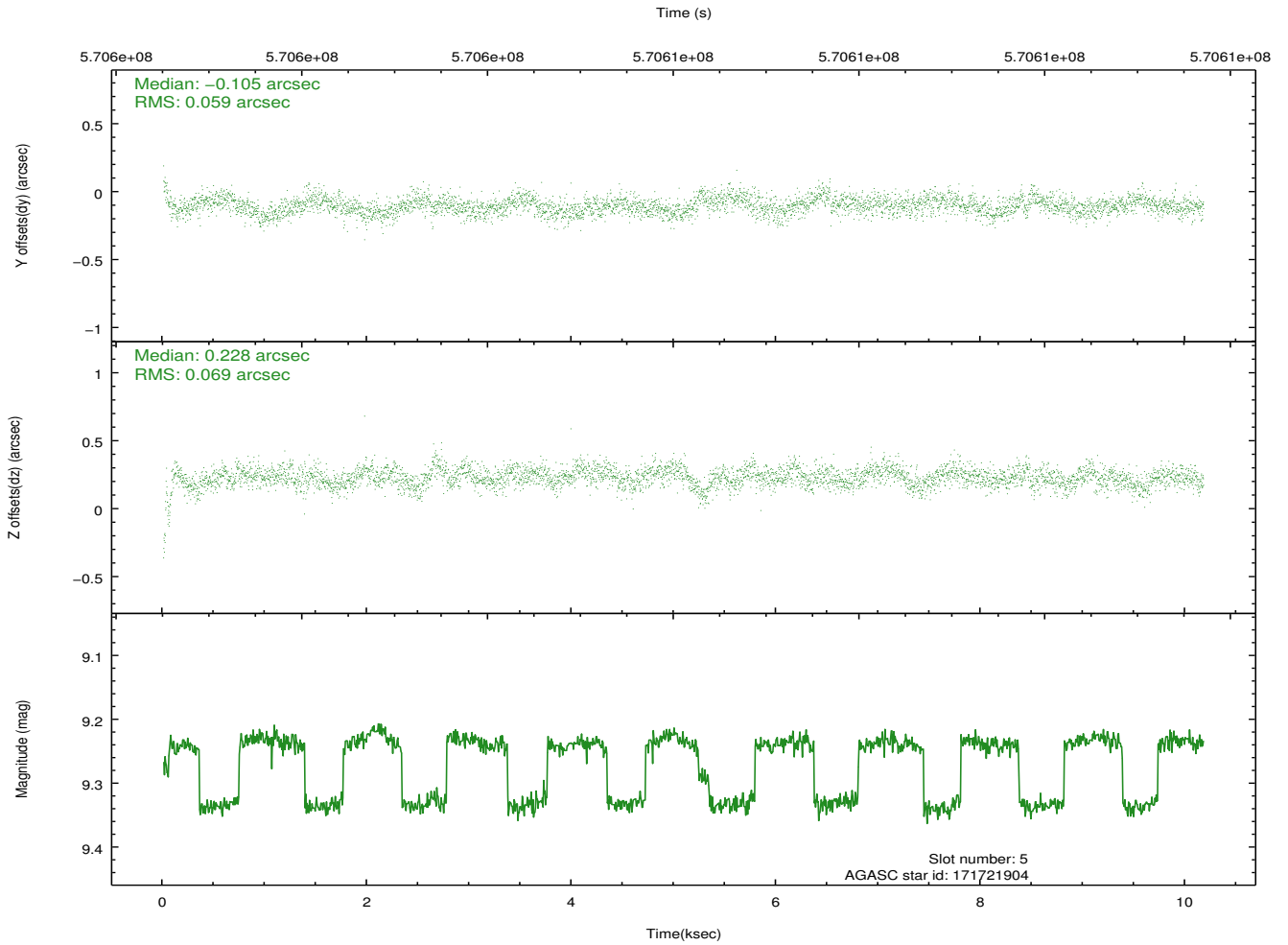
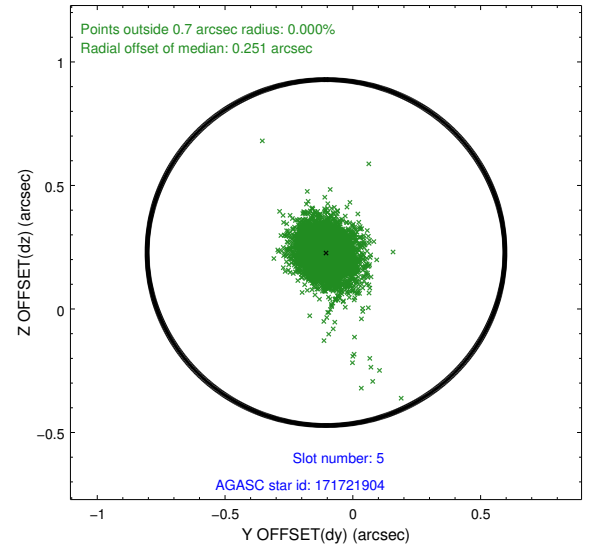
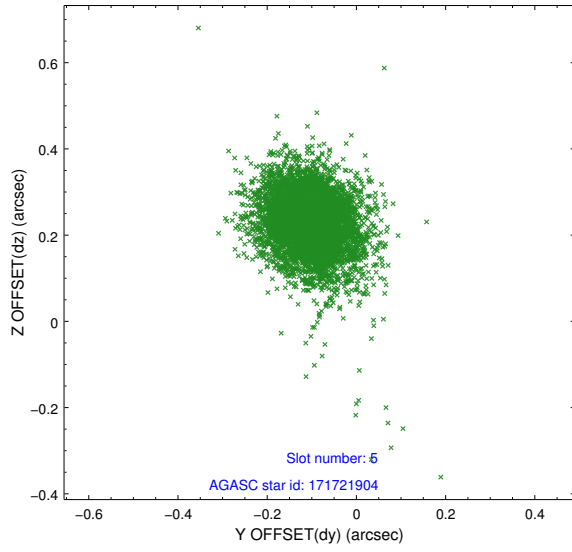
### 2.4.1 Slot 3



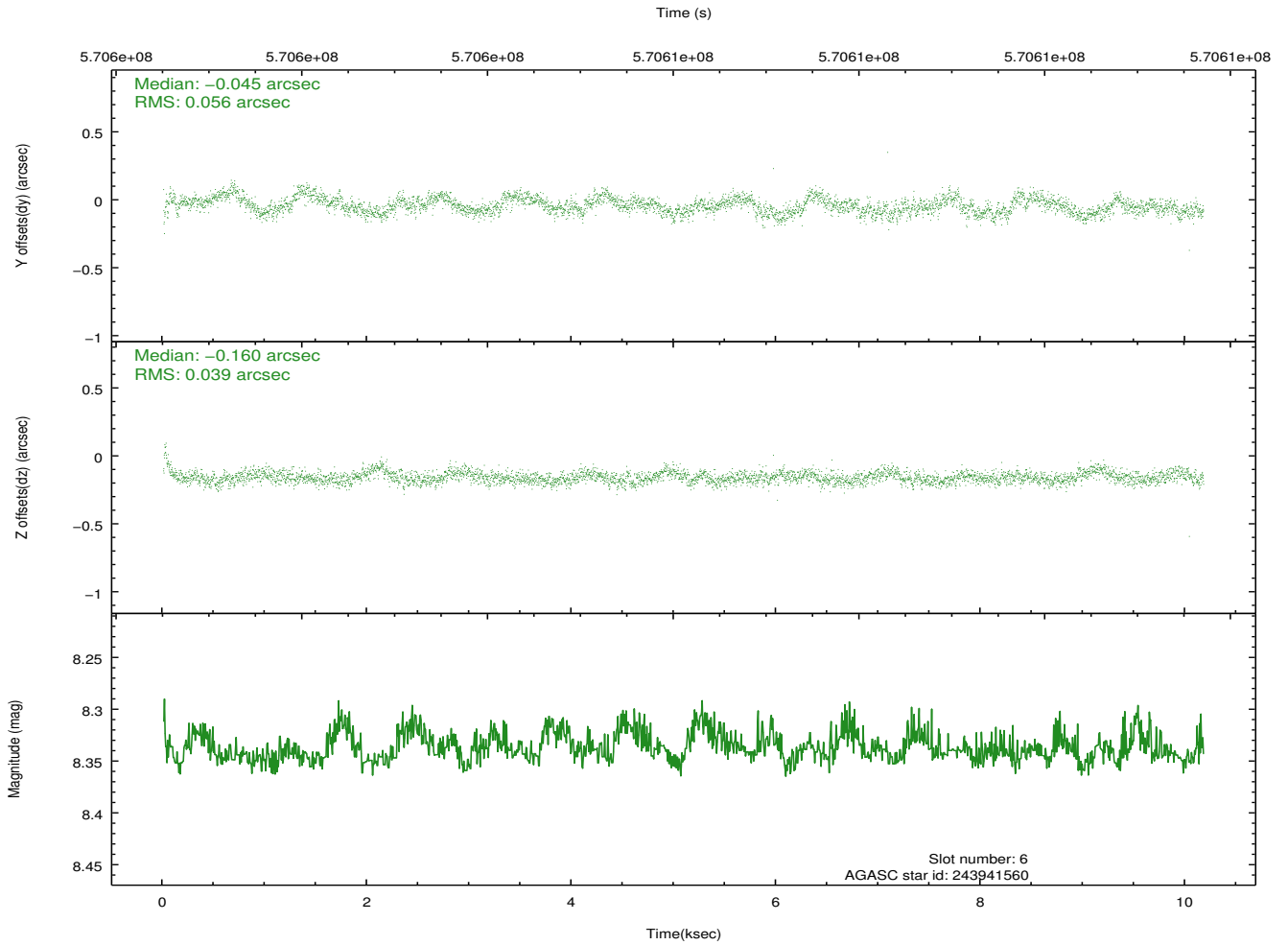
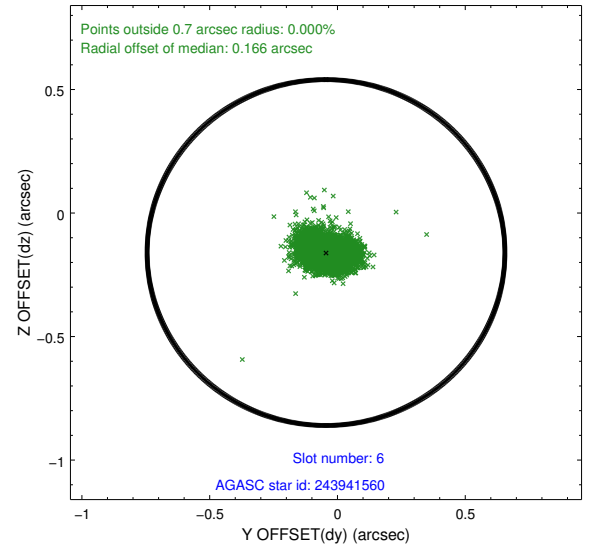
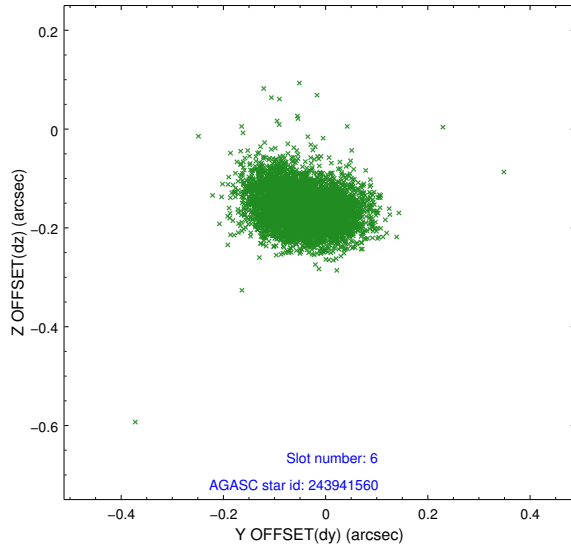
## 2.4.2 Slot 4



### 2.4.3 Slot 5

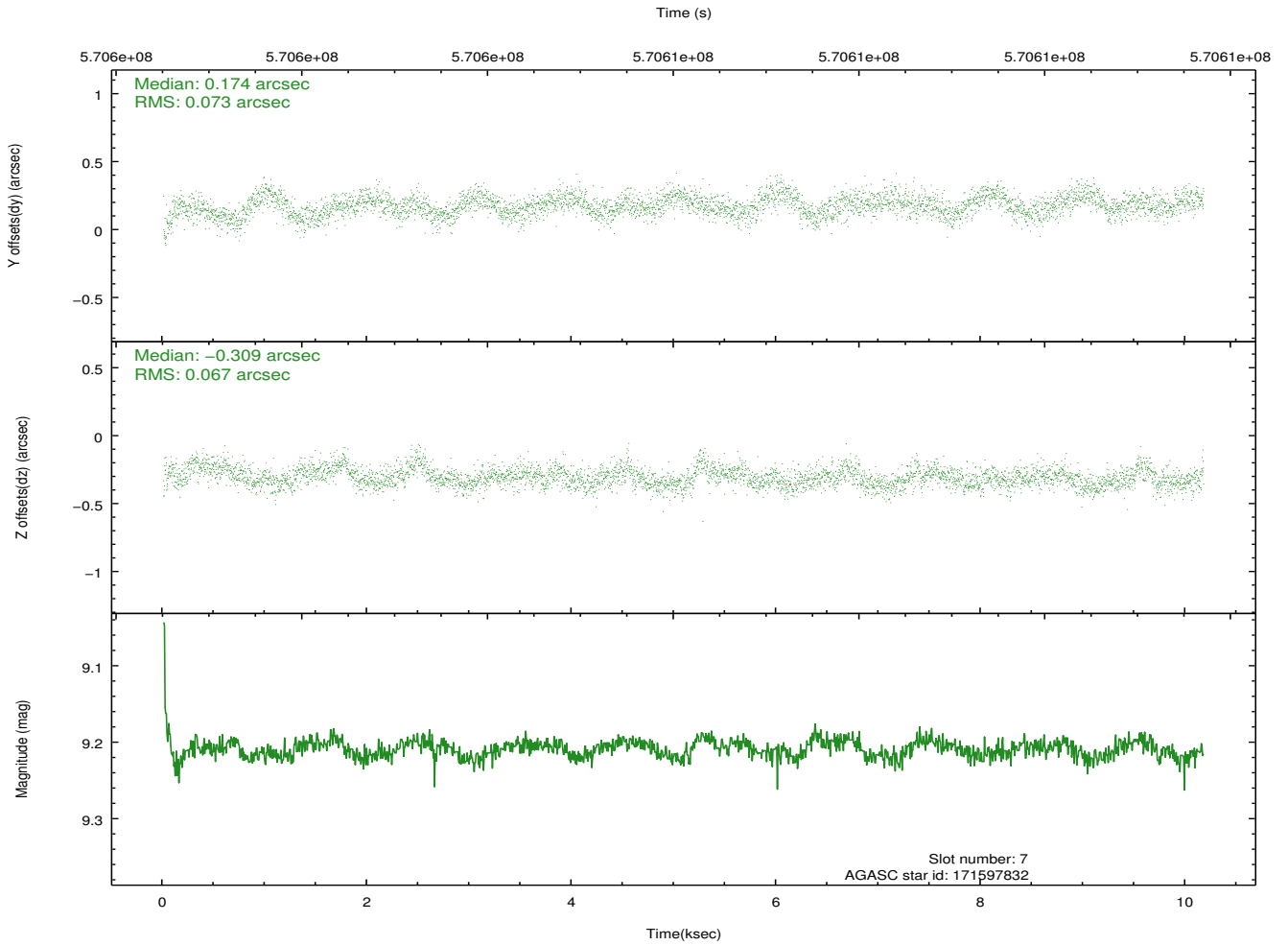
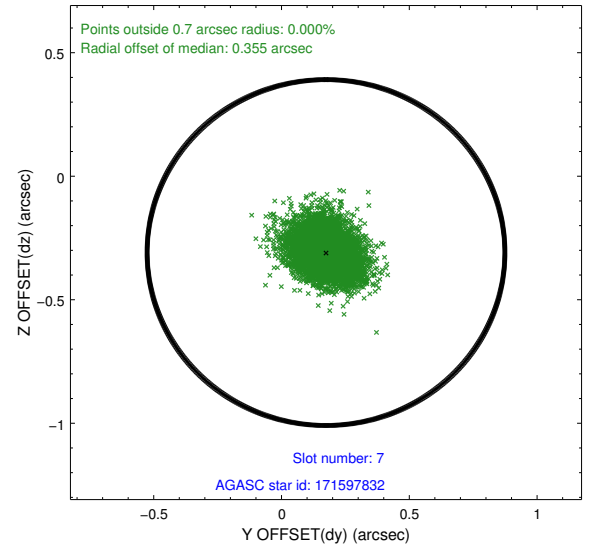
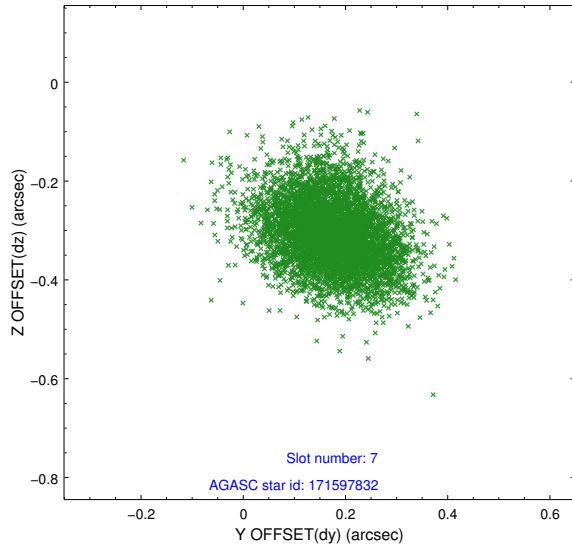


## 2.4.4 Slot 6



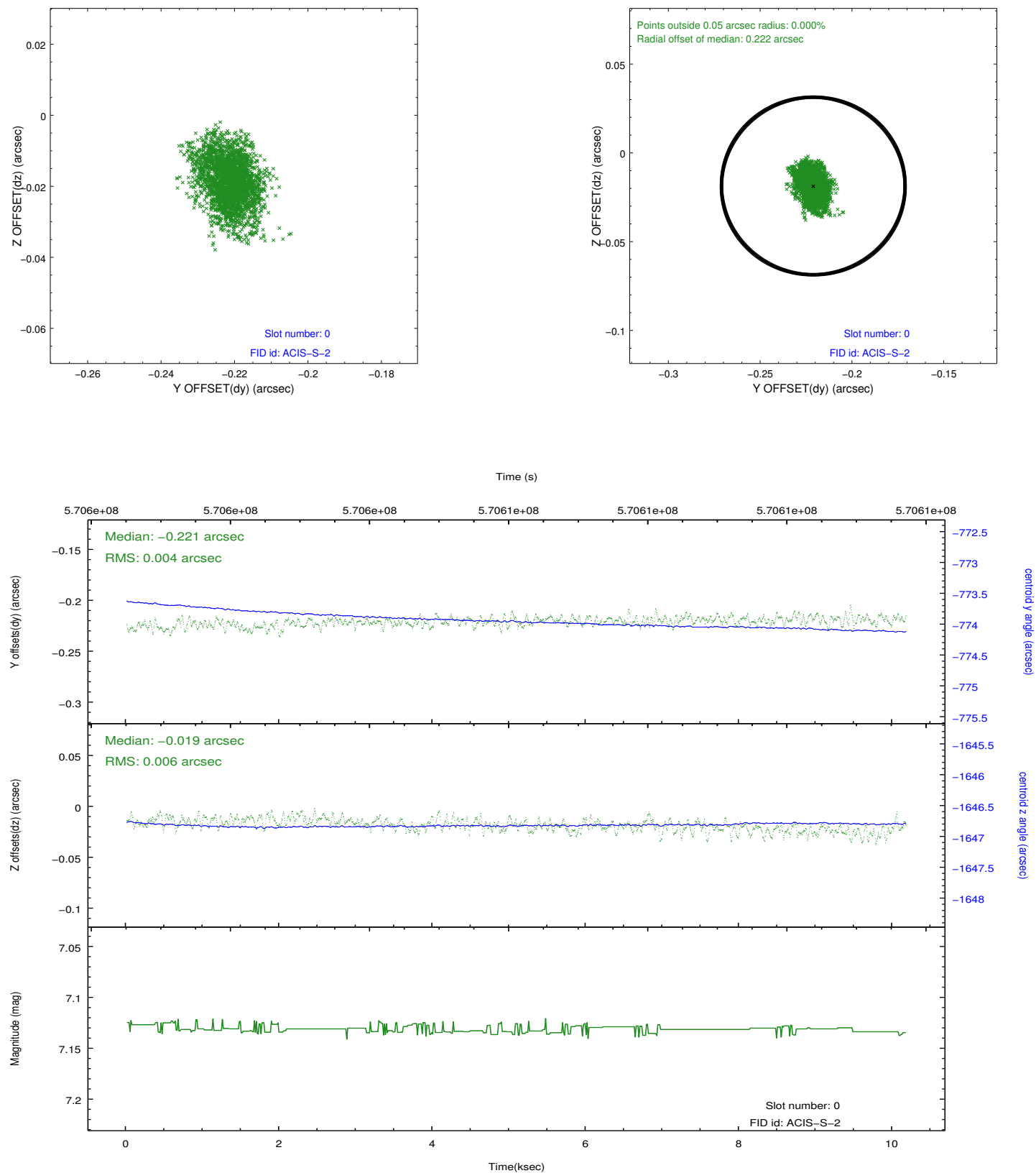


## 2.4.5 Slot 7

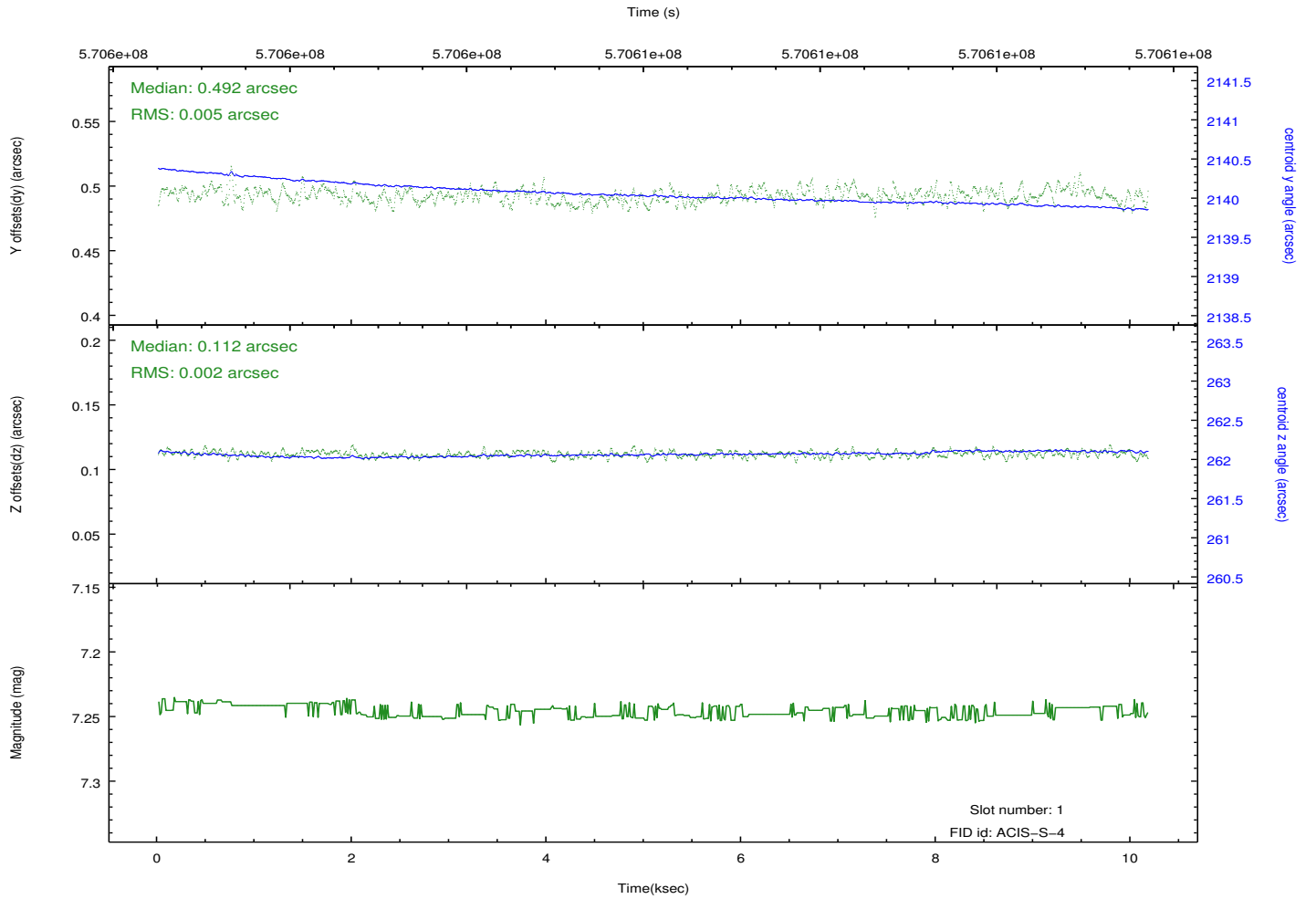
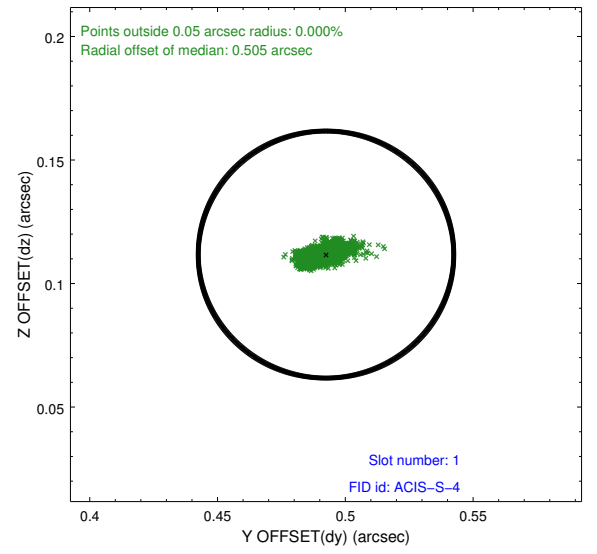
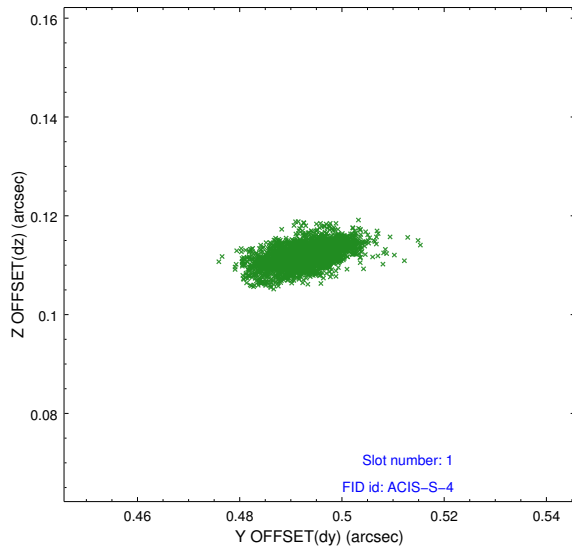


## 2.5 FID Slots

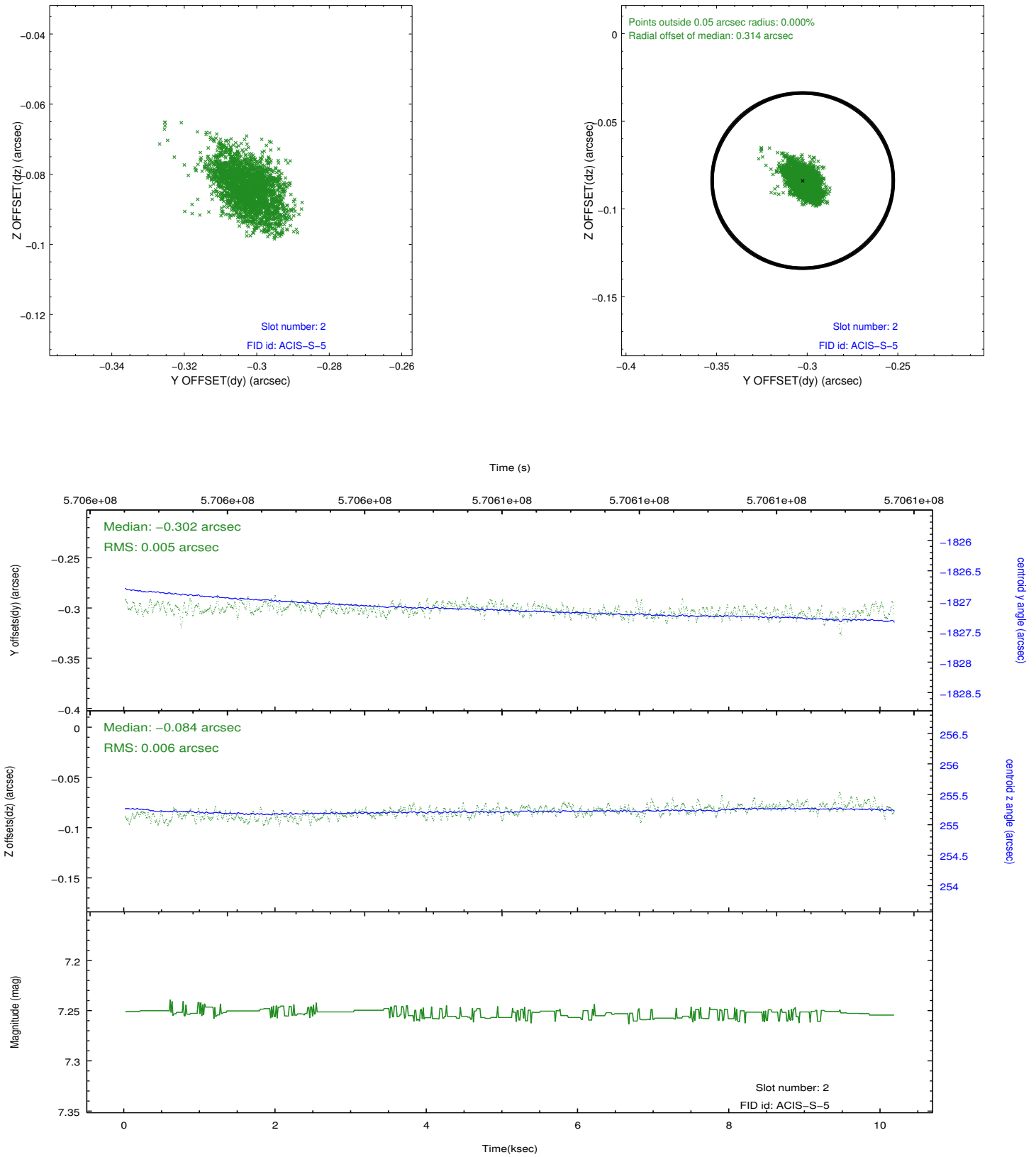
### 2.5.1 Slot 0



## 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)	2016.01.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.7956139874458

## A.2 Comments

Joint proposal with HST.

Observation coordinated with HST.

Window preference met.