

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 14986 - L2 Version 2  
Chandra X-Ray Center

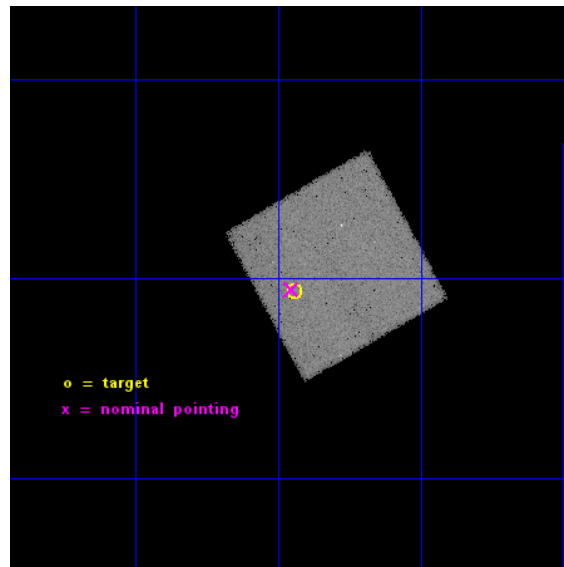
L2 Processing Date : Nov 30 2014

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# 1 Front

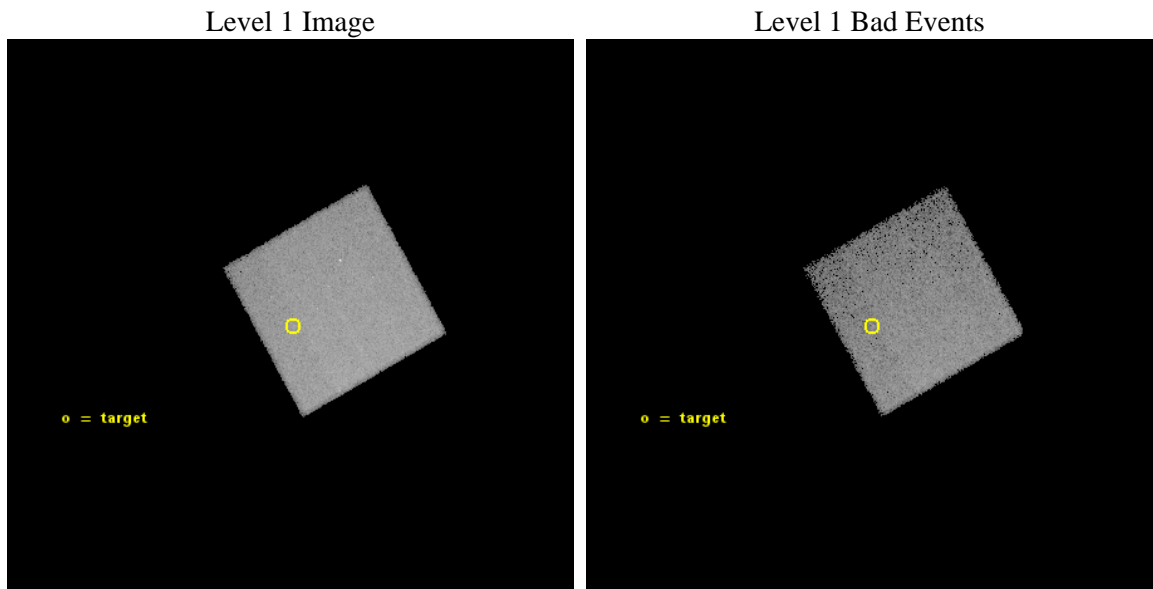
seq_num	702794	Sequence number
obs_id	14986	Observation id
title	The Energetics and Shielding of FeLoBAL Quasar Outflows	Proposal t
observer	Professor Fred Hamann	Principal investigator
object	J031856.62-060037.7	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	49.735833	Observer's specified target RA [deg]
dec_targ	-6.010472	Observer's specified target Dec [deg]
ra_nom	49.738514067822	Nominal RA [deg]
dec_nom	-6.0090264306666	Nominal Dec [deg]
roll_nom	330.75862557576	Nominal Roll [deg]
revision	2	Processing version of data
ontime	35090.860559344	Sum of GTIs [s]
livetime	34617.295950738	Livetime [s]
ontime7	35090.860559344	Sum of GTIs [s]
l2events	101309	Number of level 2 events



## 2 OBI

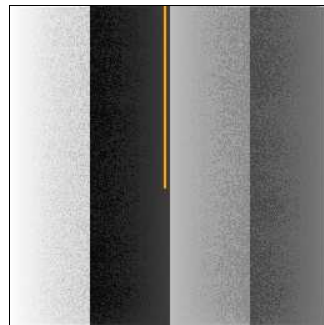
### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias

Chip 7



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	35000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	35090.860559344	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime7	35090.860559344	Sum of GTIs [s]
date	2014-11-30T05:49:13	Date and time of file creation	l1events	235978	Number of level 1 events
revision	2	Processing version of data			

### 2.1.4 Events

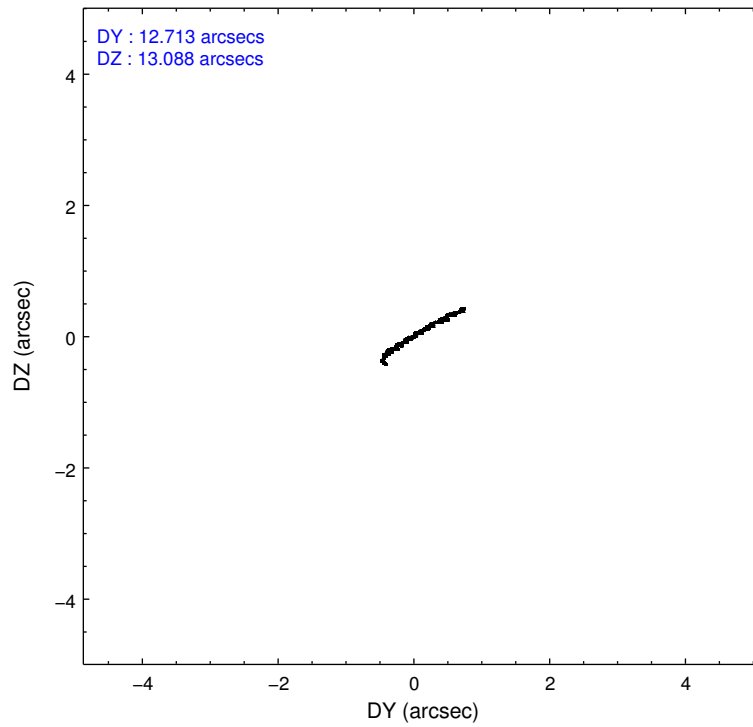
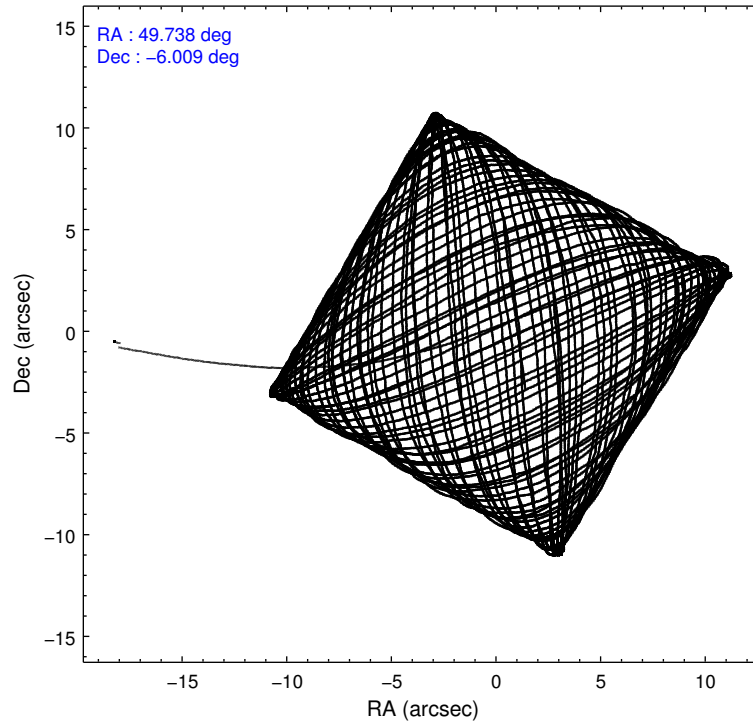
	<b>ccd 7</b>
level 1 events	235978
rejected events	131992
rejected %	55%

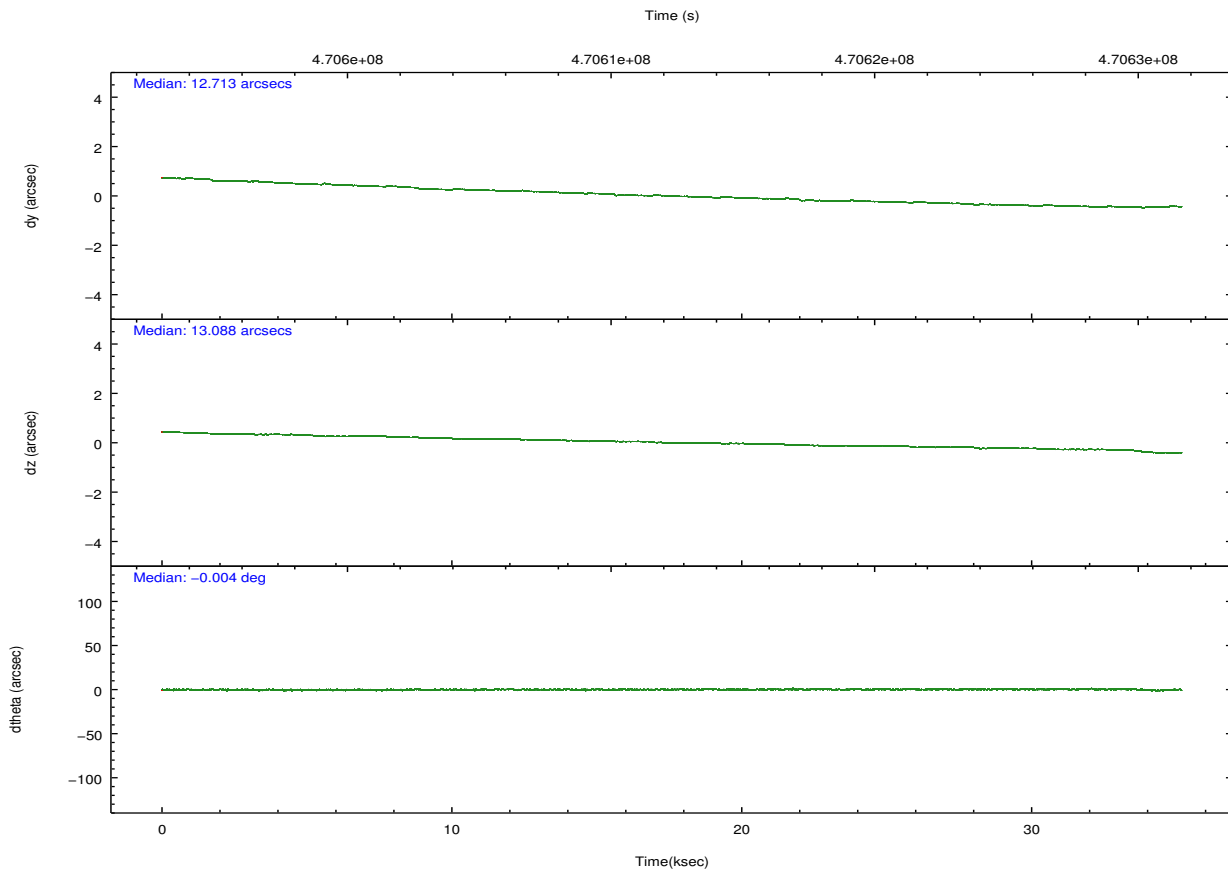
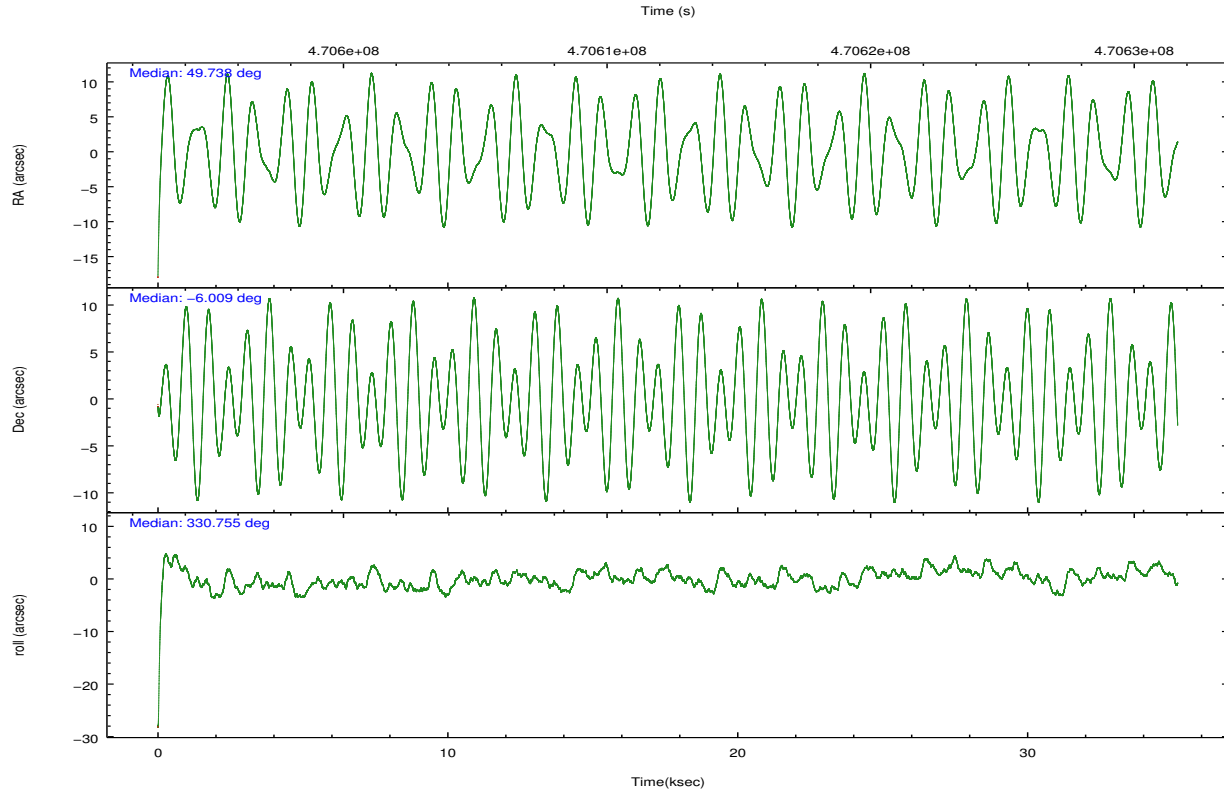
	<b>ccd 7</b>
grade 0 events	9533
	4%
grade 1 events	243
	0%
grade 2 events	21260
	9%
grade 3 events	8980
	3%
grade 4 events	8861
	3%
grade 5 events	24508
	10%
grade 6 events	55365
	23%
grade 7 events	107228
	45%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-7	ACIS-7	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	49.711033	49.73851406782196	Subarray requested	NONE	NONE
[deg] Pointing Dec	-6.009776	-6.009026430666599	Alternating exposures requested	N	N
[deg] Pointing Roll	330.599125	330.7586255757626	[s] Primary exposure time	0.000000	3
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	470594897.184000	470593511.10343			
Observation start date	2012-11-29T16:47:10	2012-11-29T16:25:11			
[s] Observation end time (MET)	470629897.184000	470630592.53043			
Observation end date	2012-11-30T02:30:30	2012-11-30T02:43:12			
Read mode	TIMED	TIMED			

## 2.3 Aspect





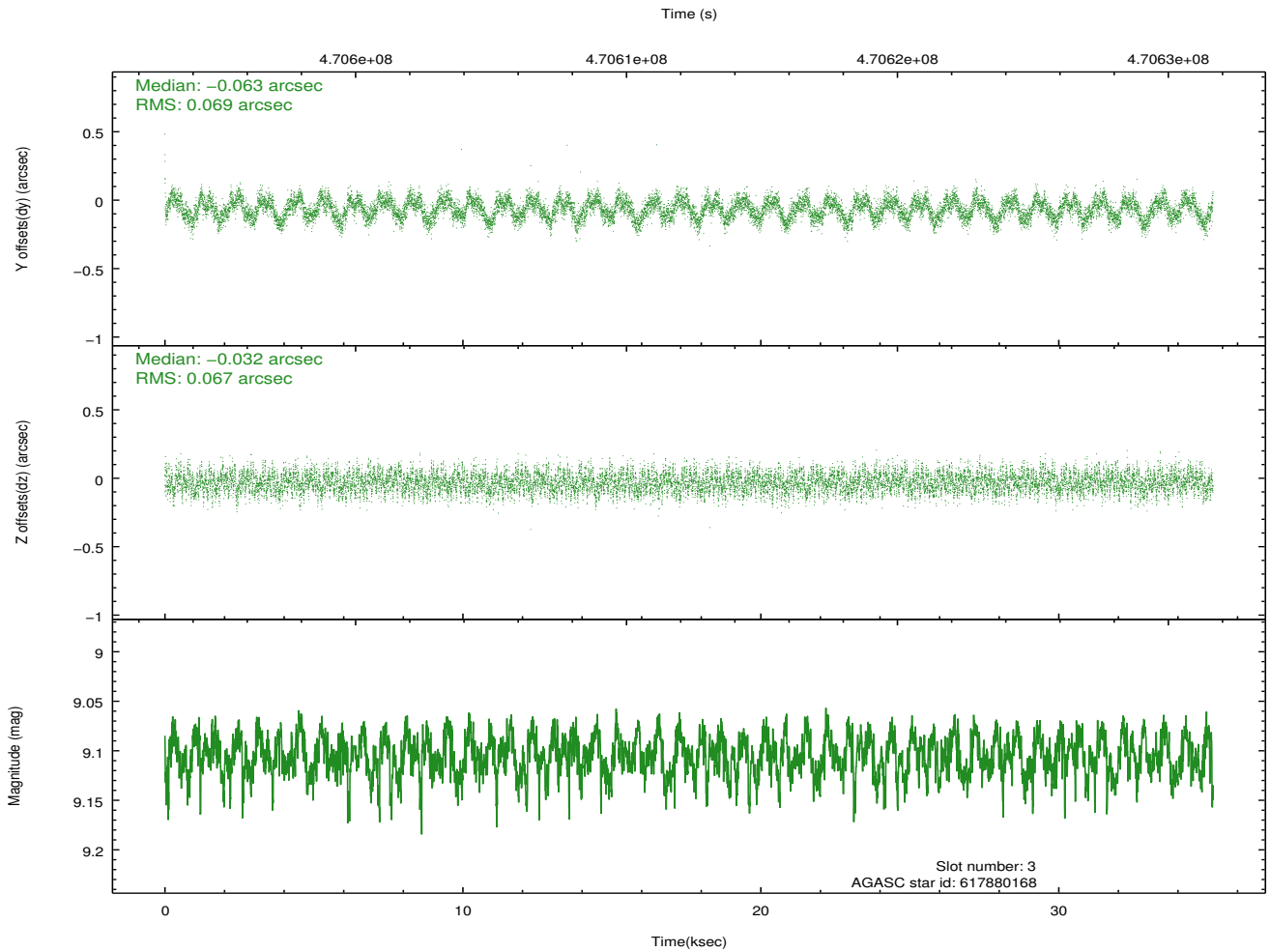
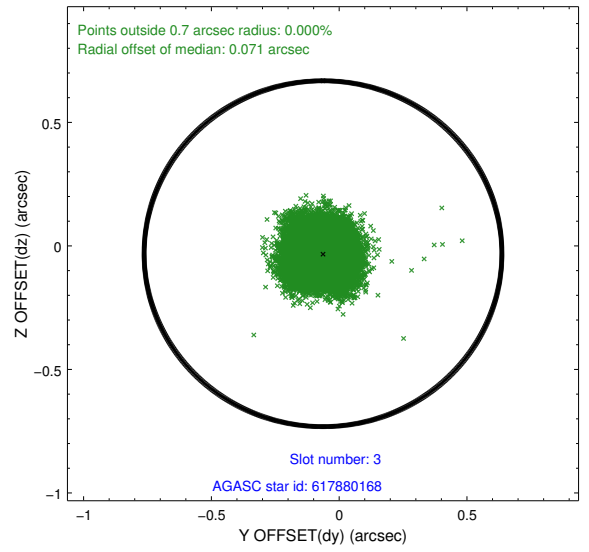
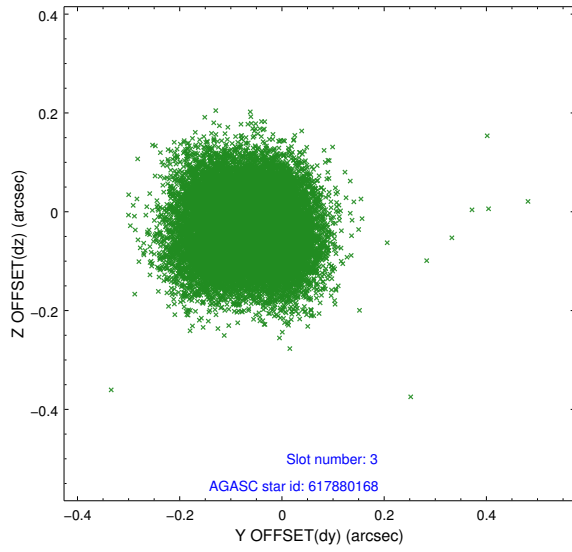
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.05	8581	-0.044	-0.058	0.011	0.018	0.000000	0.000000	-765.72	-1734.43
1	FID		ACIS-S-4	7.14	8581	0.197	0.037	0.018	0.030	0.000000	0.000000	2147.80	174.08
2	FID		ACIS-S-5	7.18	8581	-0.185	0.029	0.015	0.024	0.000000	0.000000	-1818.63	167.82
3	GUIDE	used	617880168	9.11	17124	-0.063	-0.032	0.104	0.161	49.552845	-6.412466	219.11	-1540.59
4	GUIDE	used	617880944	9.66	17142	0.185	0.014	0.150	0.242	49.576997	-6.131073	-202.74	-615.97
5	GUIDE	used	617881648	8.92	17153	0.012	-0.038	0.104	0.165	48.857281	-6.234476	-2262.87	-2206.94
6	GUIDE	used	617881696	9.68	17059	-0.082	0.149	0.166	0.272	49.829648	-6.268585	827.91	-603.35
7	GUIDE	used	618012880	9.62	17128	-0.039	-0.089	0.116	0.188	50.296678	-6.192731	2150.87	454.38

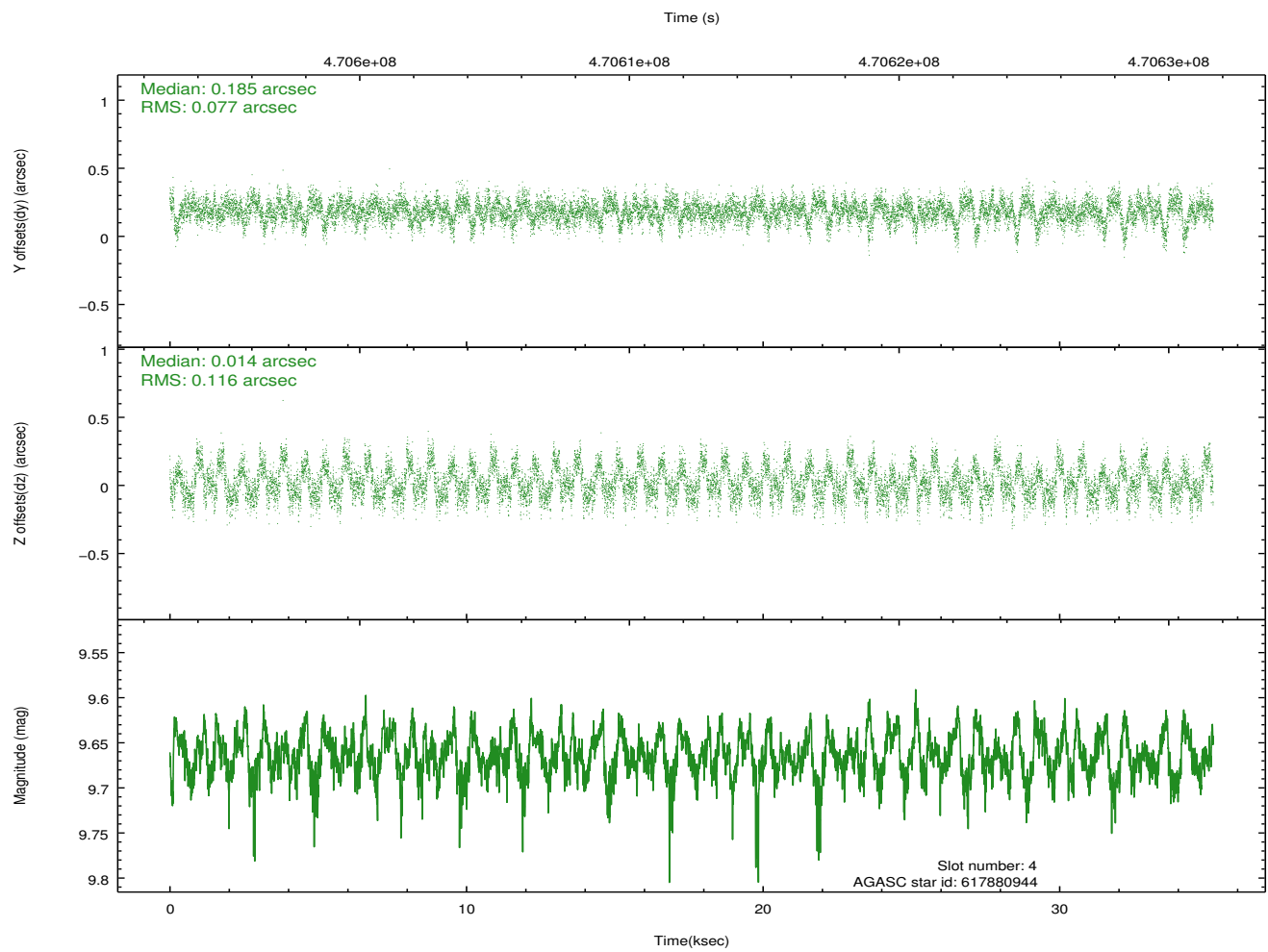
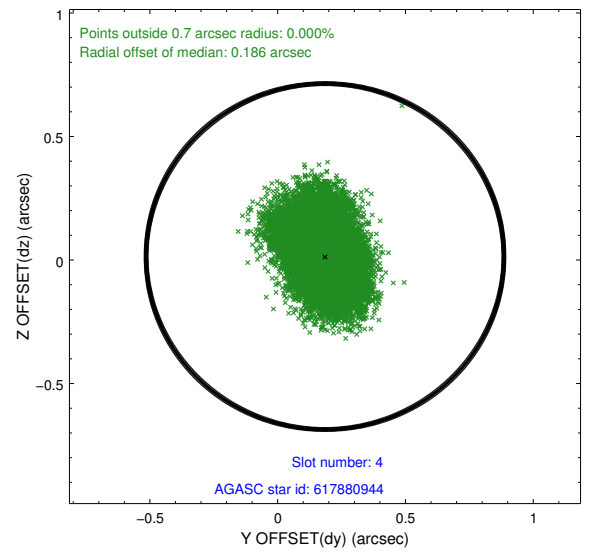
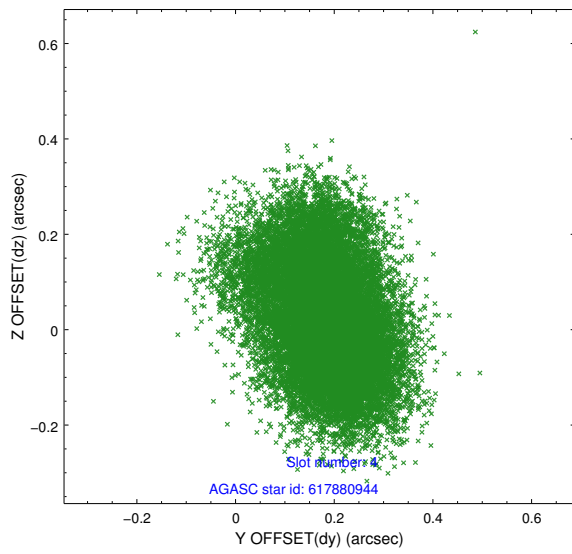
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## 2.4 Star Slots

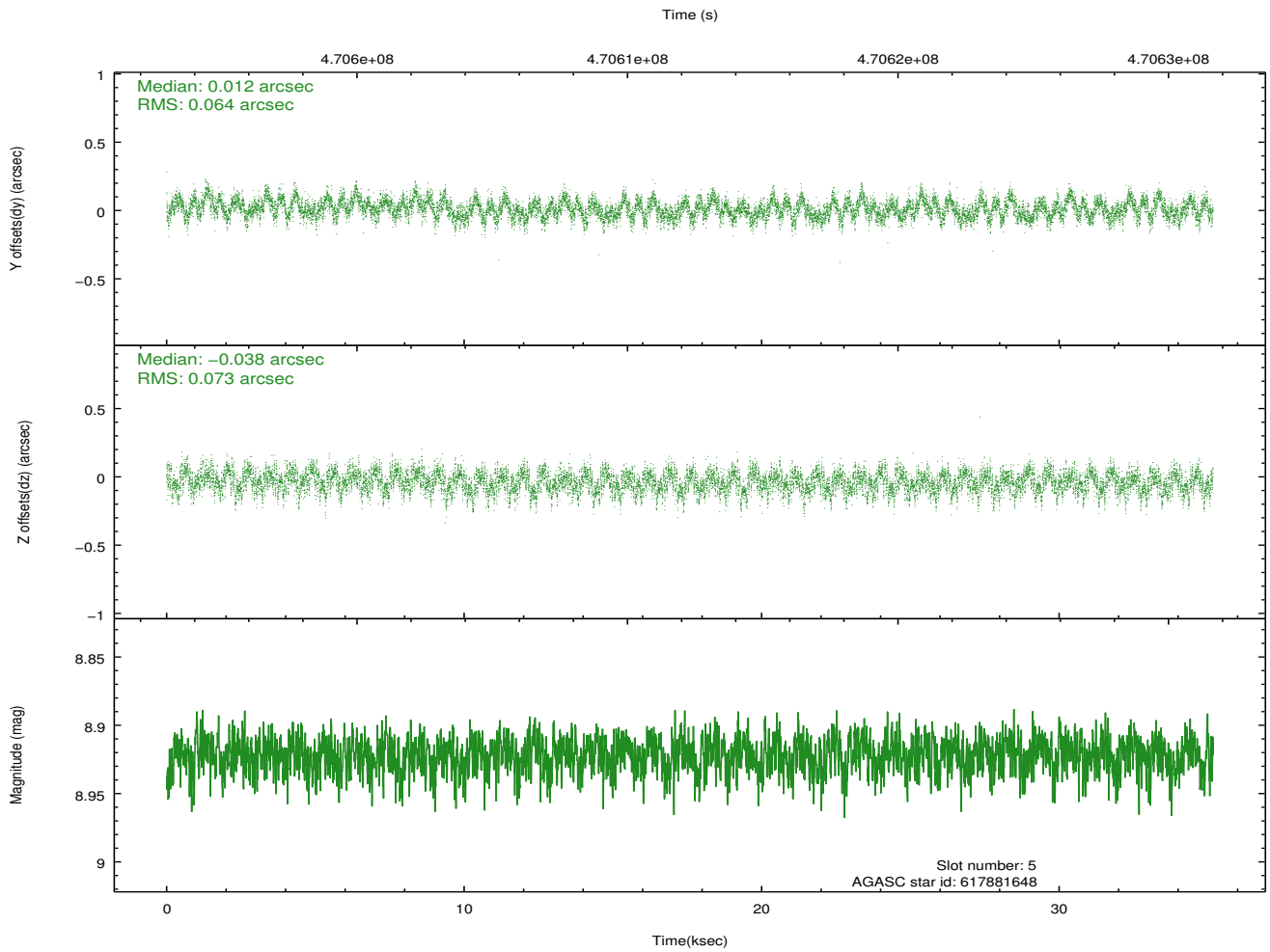
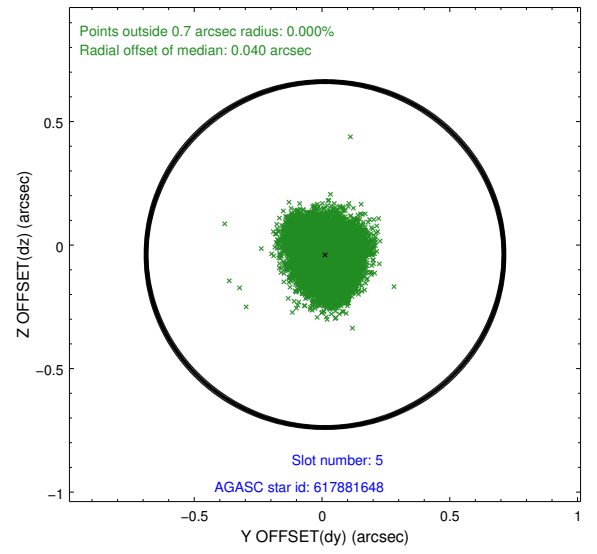
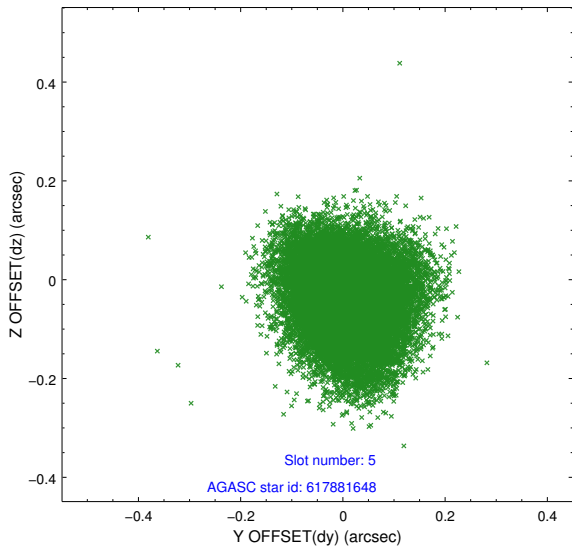
### 2.4.1 Slot 3



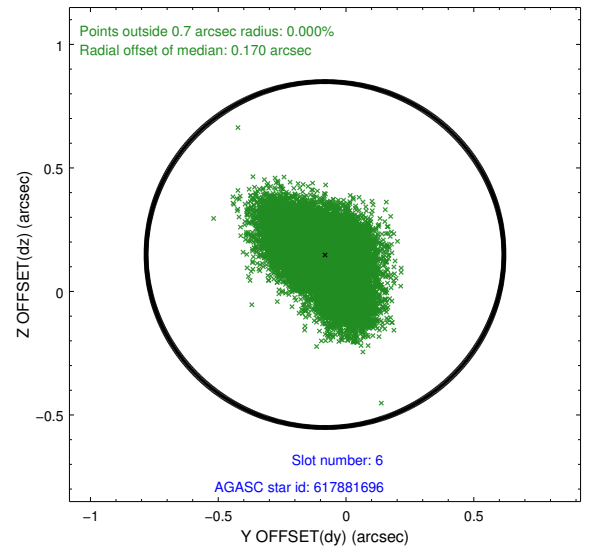
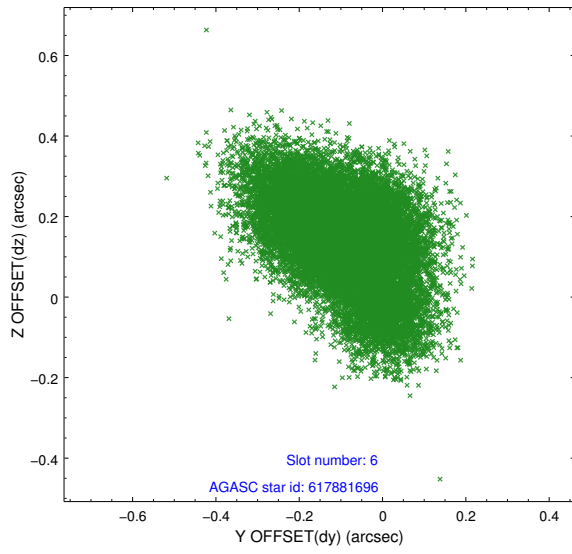
## 2.4.2 Slot 4



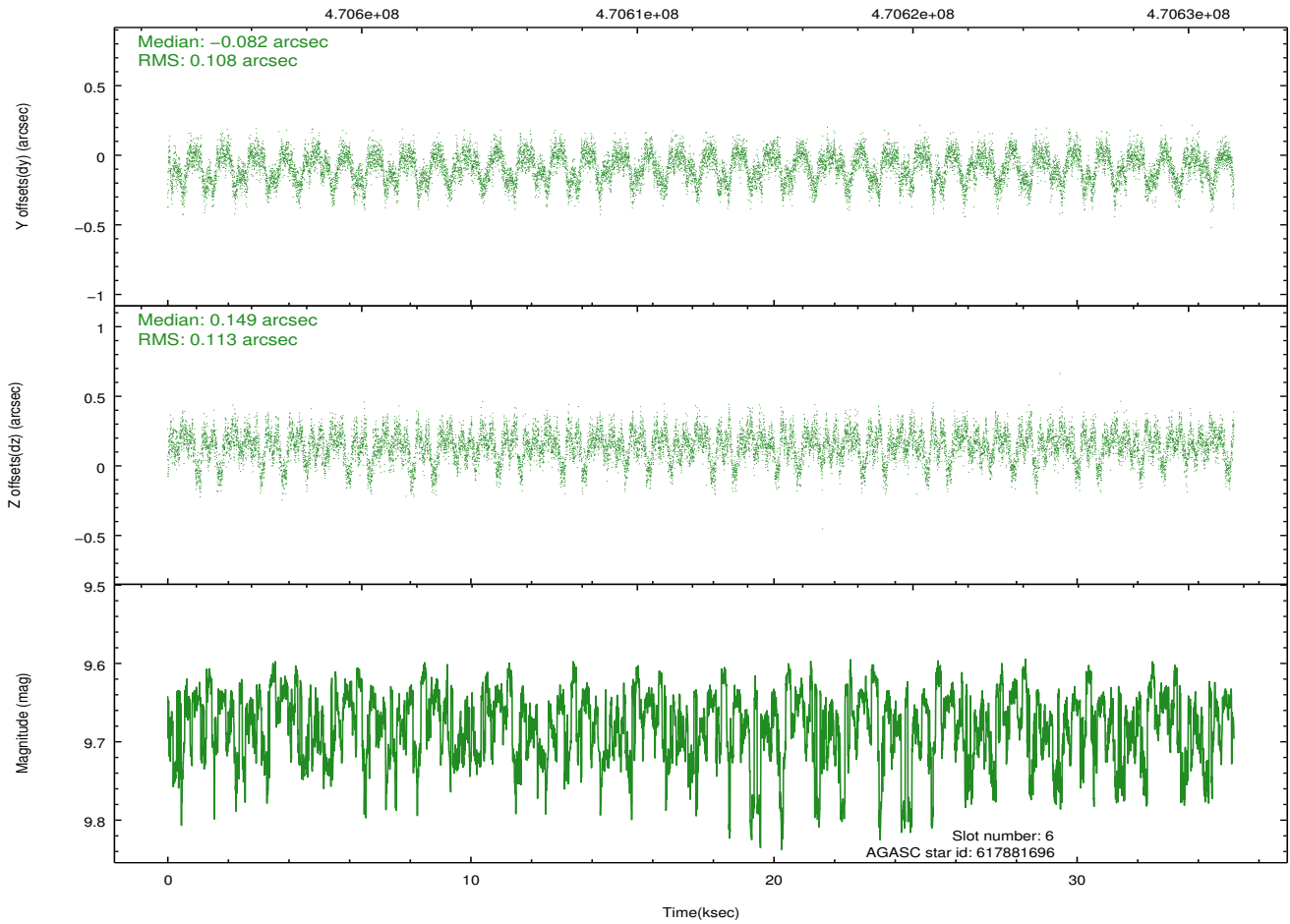
### 2.4.3 Slot 5



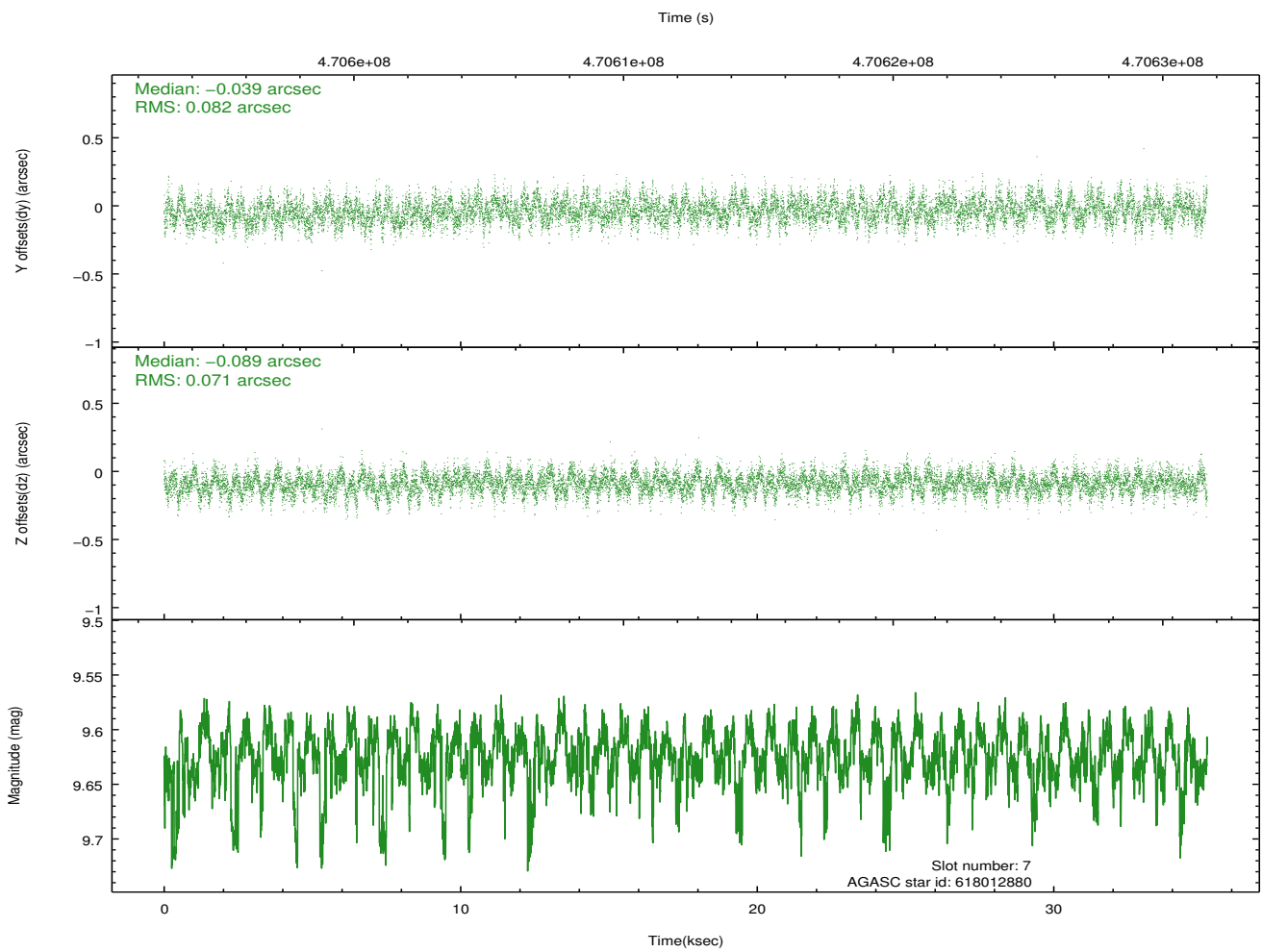
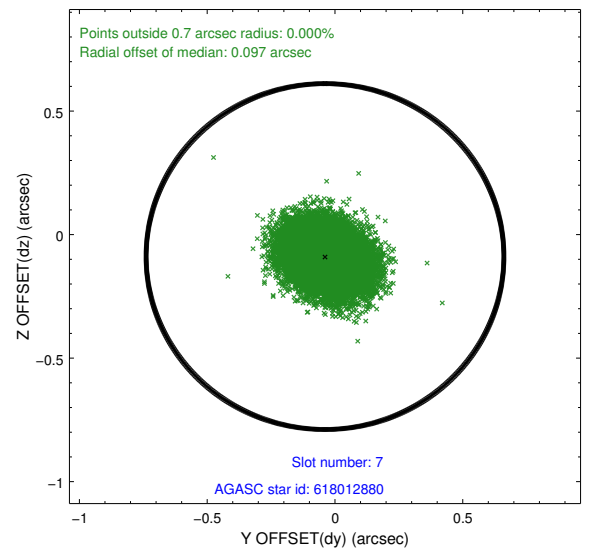
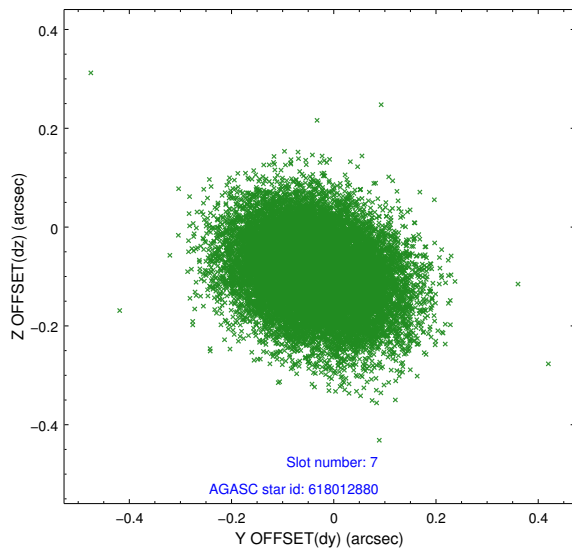
## 2.4.4 Slot 6



Time (s)

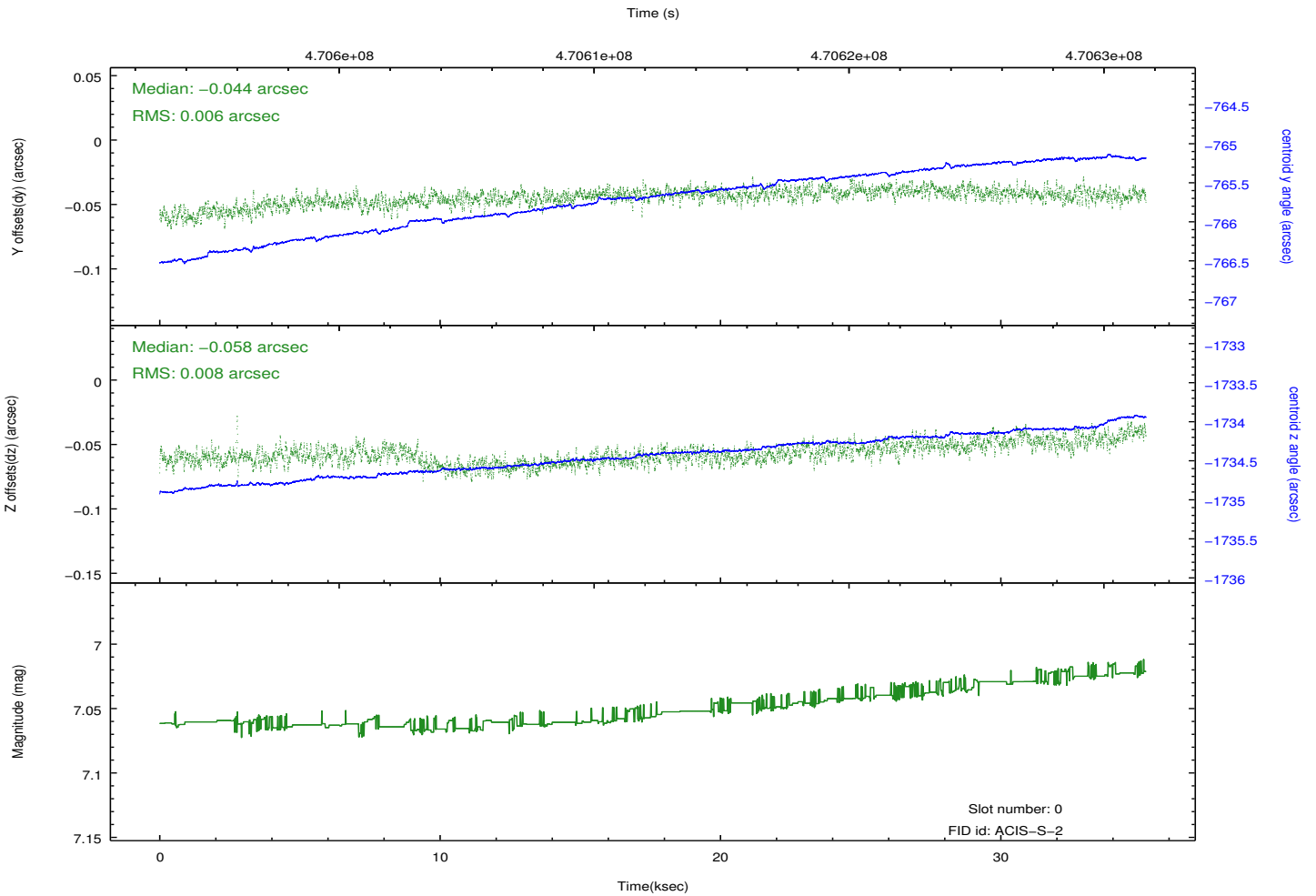
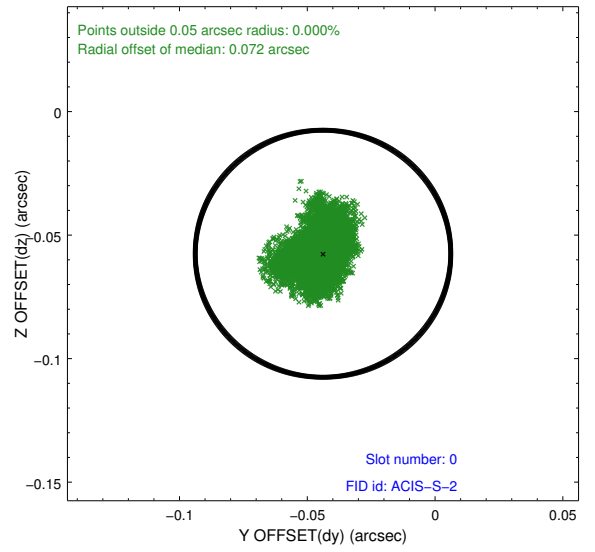
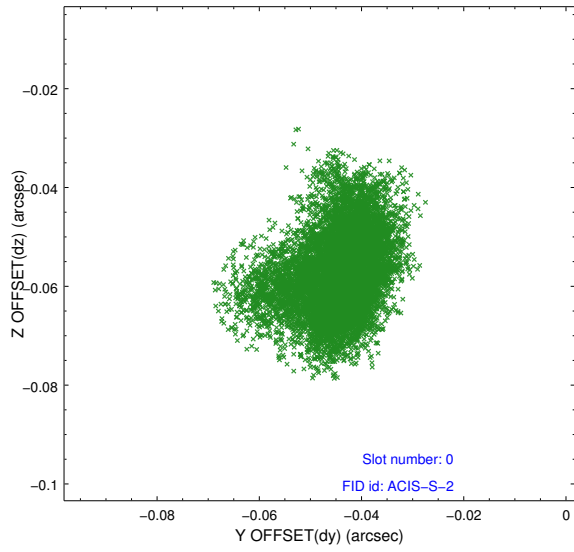


## 2.4.5 Slot 7

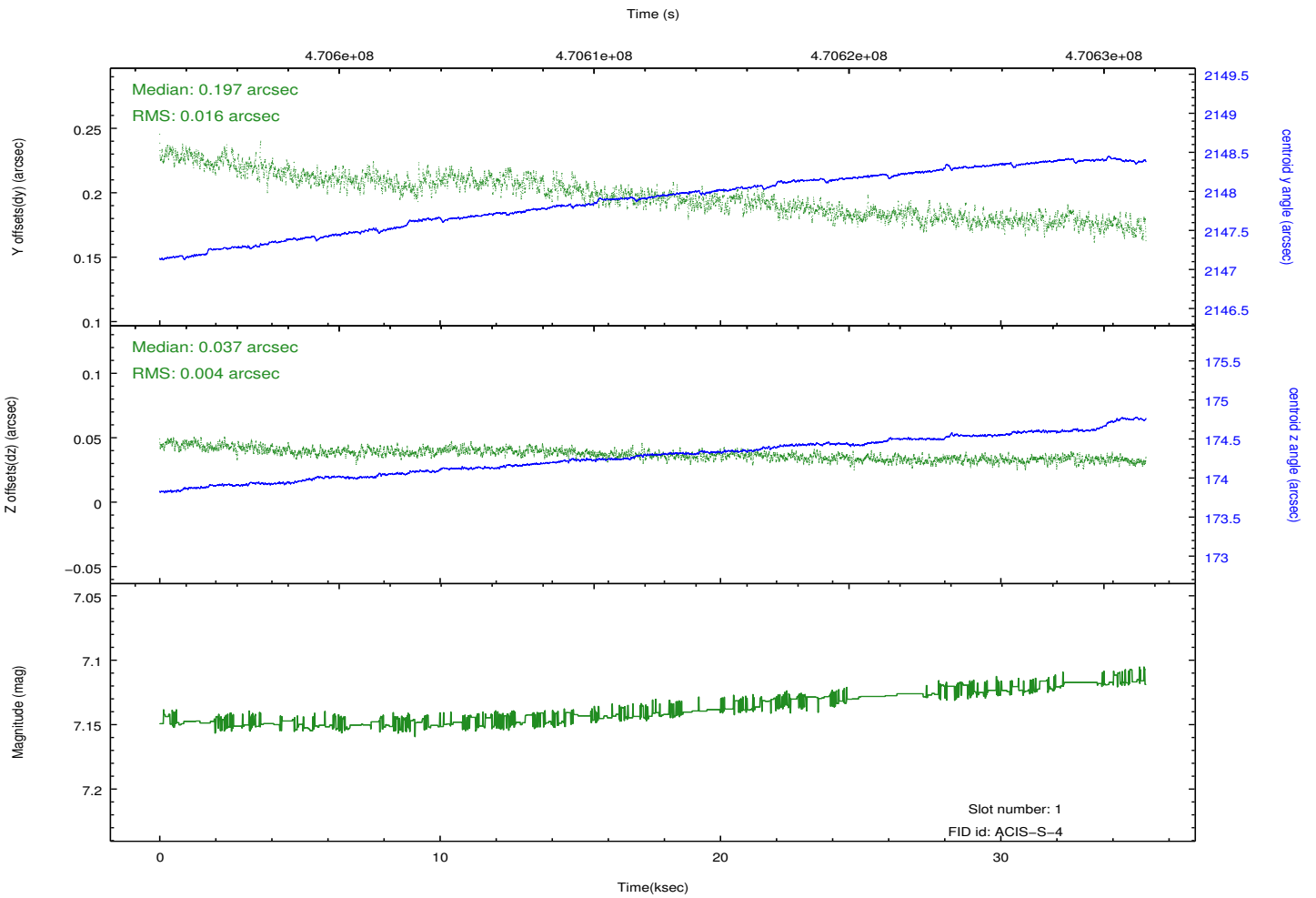
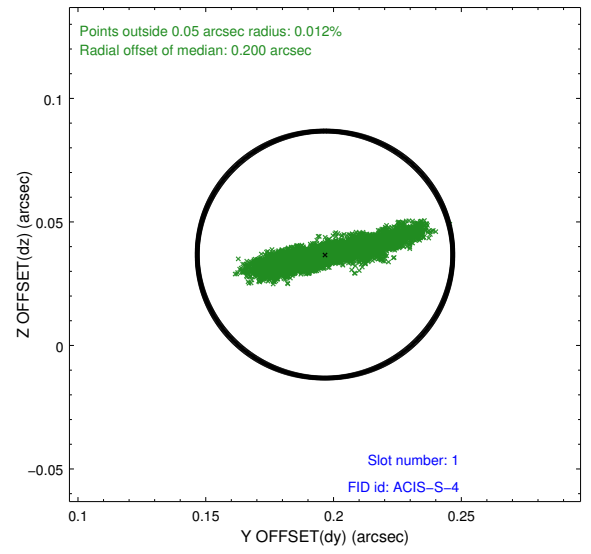
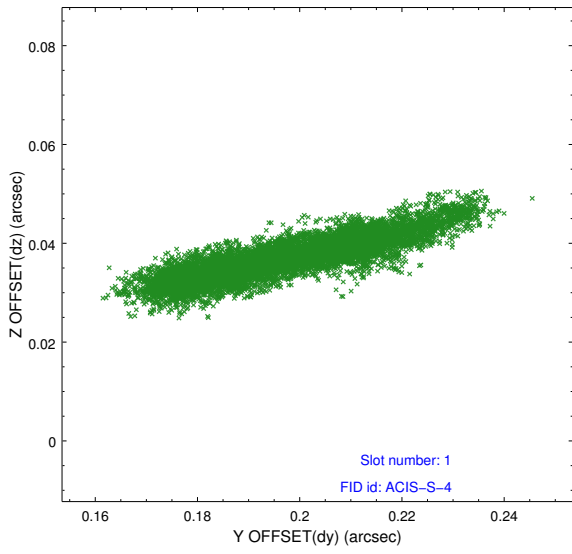


## 2.5 FID Slots

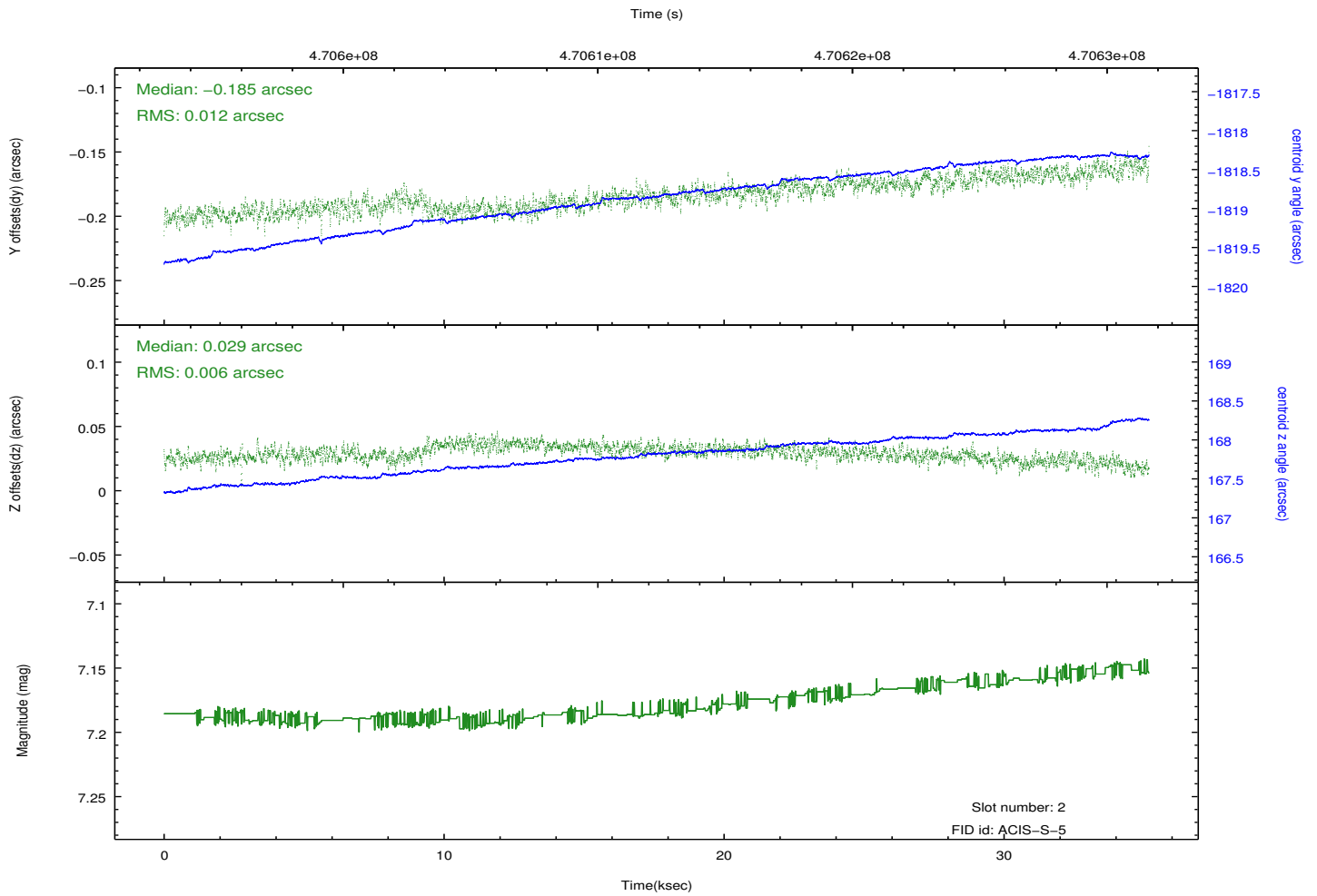
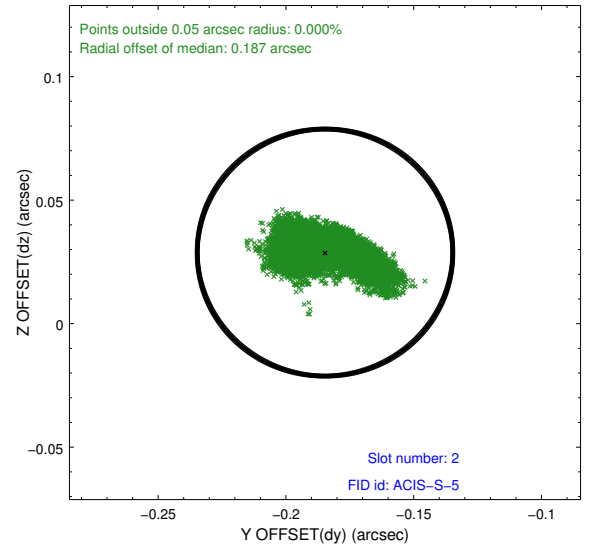
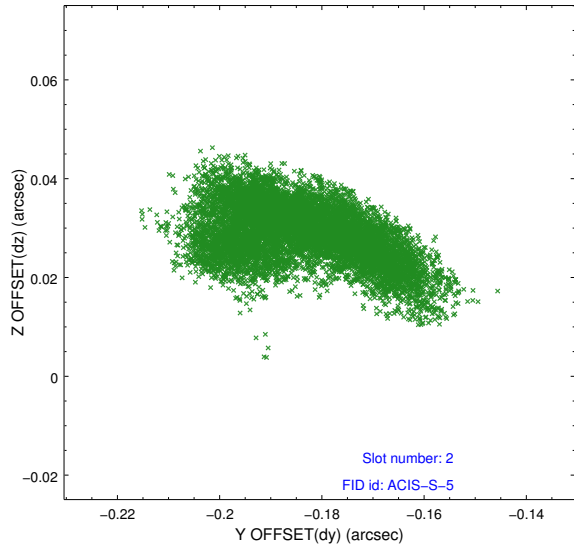
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	35.090860559344

## A.2 Comments

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.