

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 367 - L2 Version 4  
Chandra X-Ray Center

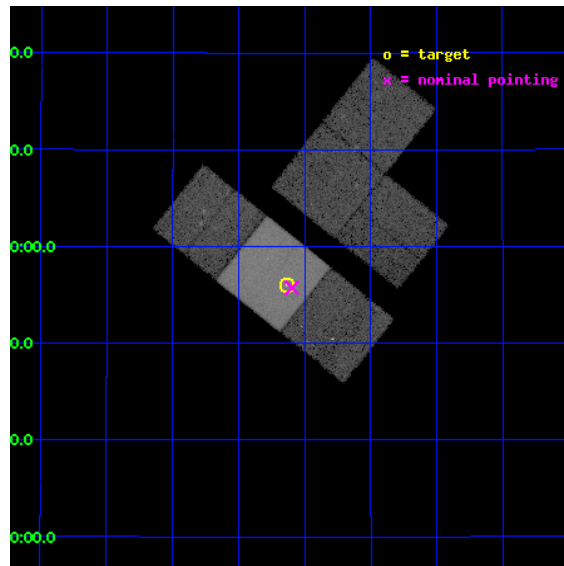
L2 Processing Date : Aug 28 2012

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# 1 Front

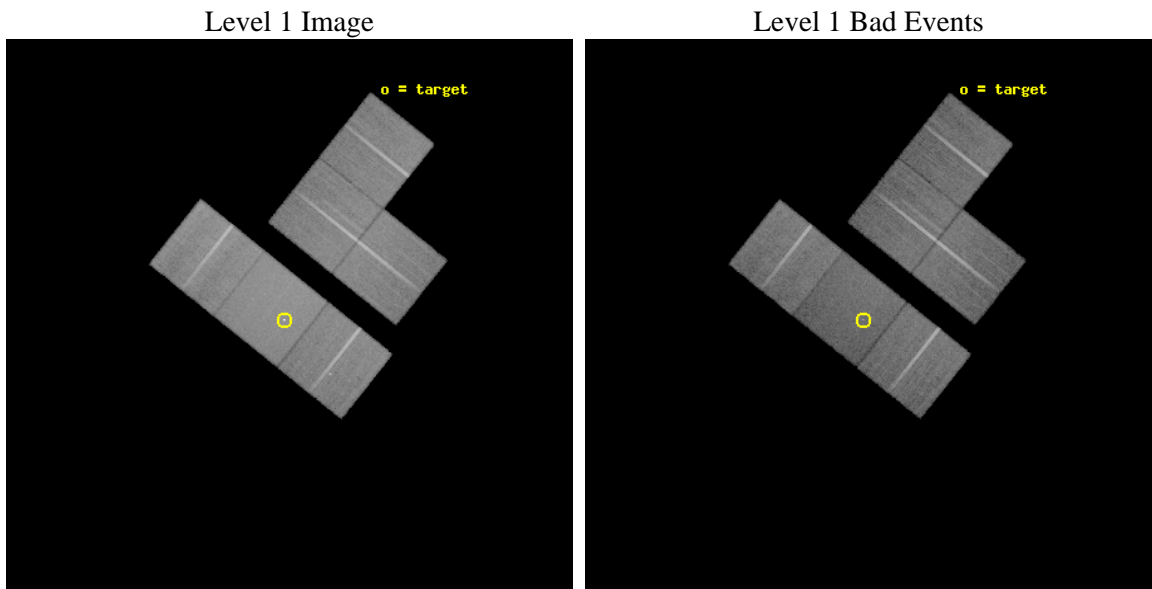
seq_num	700039	Sequence number
obs_id	367	Observation id
title	ACIS STUDY OF GRAVITATIONALLY LENSED QUASARS	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	Q1422+231	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	216.158708	Observer's specified target RA [deg]
dec_targ	22.9335	Observer's specified target Dec [deg]
ra_nom	216.14916367073	Nominal RA [deg]
dec_nom	22.928816483275	Nominal Dec [deg]
roll_nom	218.60884829838	Nominal Roll [deg]
revision	4	Processing version of data
ontime	28828.26028578	Sum of GTIs [s]
livetime	28463.219495747	Livetime [s]
ontime1	28831.542296022	Sum of GTIs [s]
ontime2	28831.337096021	Sum of GTIs [s]
ontime3	28828.178205788	Sum of GTIs [s]
ontime6	28831.460216016	Sum of GTIs [s]
ontime7	28828.26028578	Sum of GTIs [s]
ontime8	28828.137165785	Sum of GTIs [s]
l2events	210666	Number of level 2 events



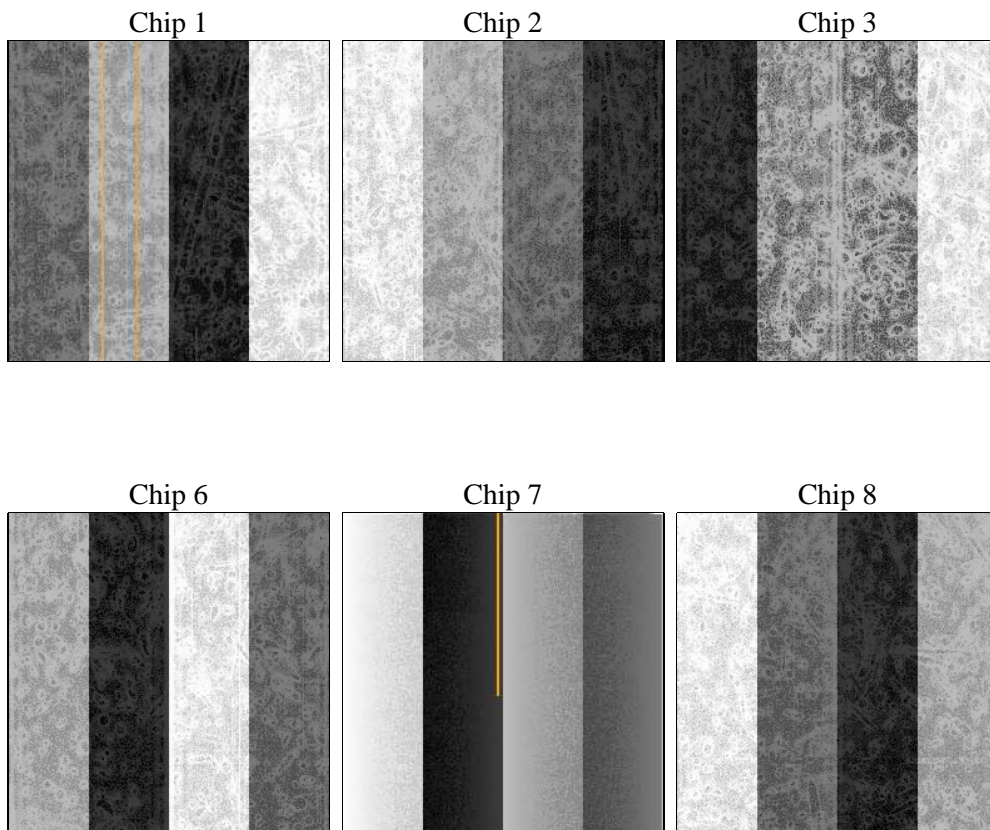
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	29000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	28828.26028578	Sum of GTIs [s]
caldbver	4.5.1.1	&#160	ontime1	28831.542296022	Sum of GTIs [s]
date	2012-08-28T18:55:14	Date and time of file creation	ontime2	28831.337096021	Sum of GTIs [s]
revision	4	Processing version of data	ontime3	28828.178205788	Sum of GTIs [s]
			ontime6	28831.460216016	Sum of GTIs [s]
			ontime7	28828.26028578	Sum of GTIs [s]
			ontime8	28828.137165785	Sum of GTIs [s]
			l1events	1263535	Number of level 1 events

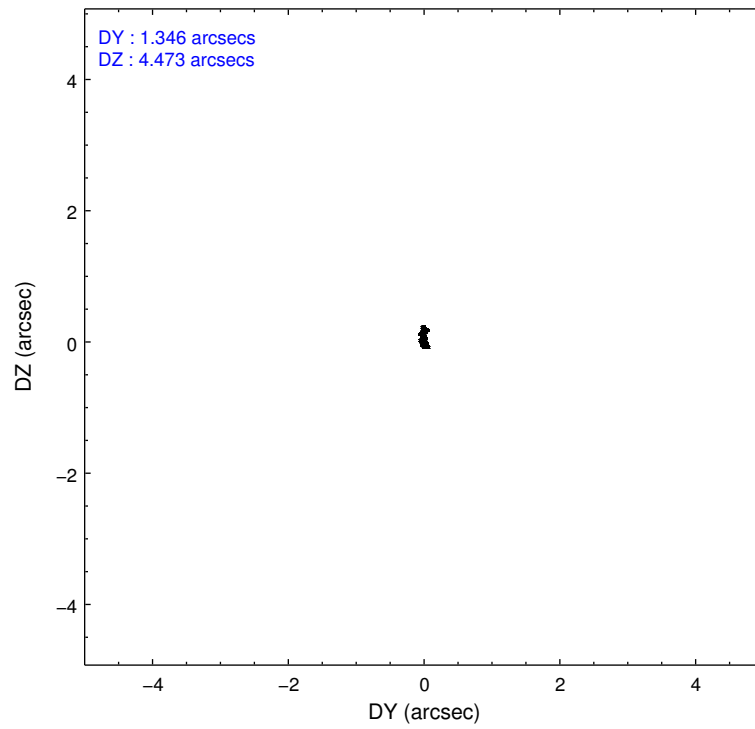
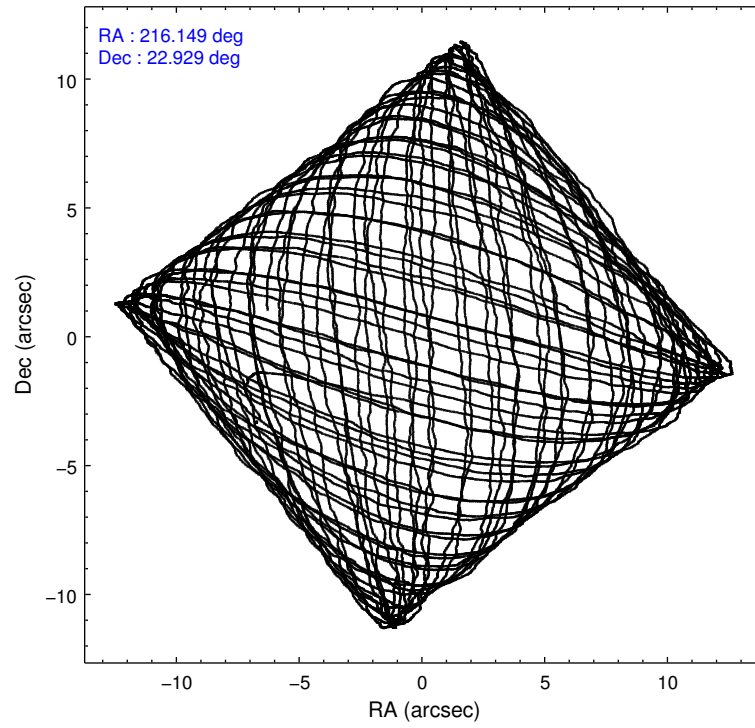
### 2.1.4 Events

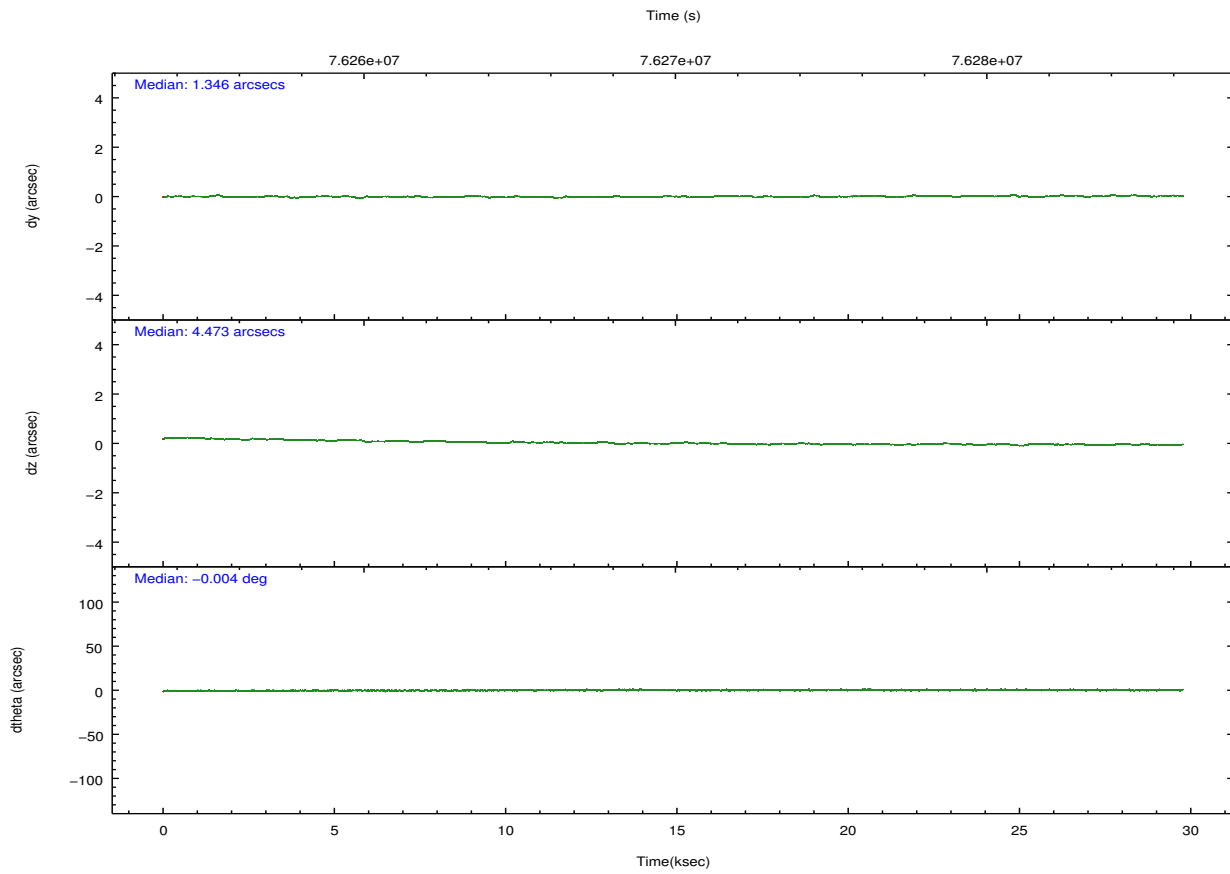
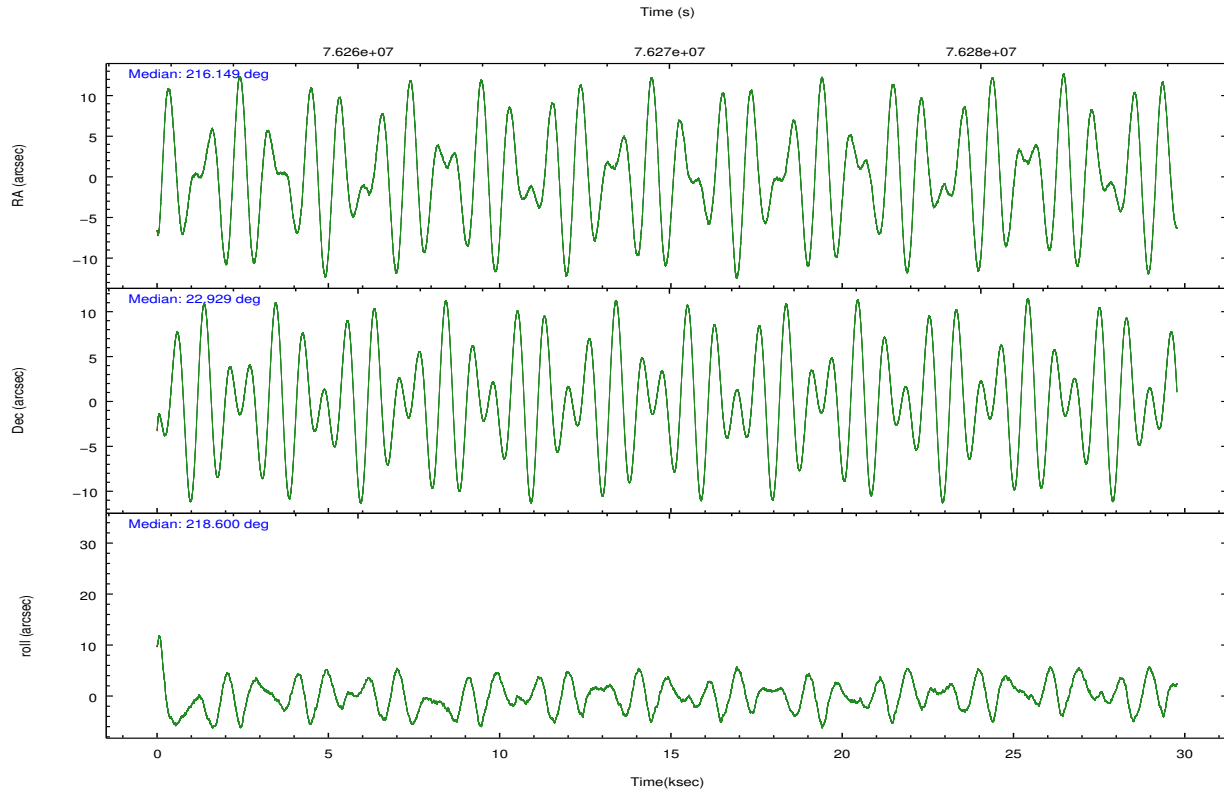
	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8		ccd 1	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	190353	192428	194577	199684	247265	239228	grade 0 events	10201	8784	9766	10526	13329	15208
rejected events	166519	172096	173440	176432	131117	193861		5%	4%	5%	5%	5%	6%
rejected %	87%	89%	89%	88%	53%	81%	grade 1 events	95	80	97	93	251	139
								0%	0%	0%	0%	0%	0%
							grade 2 events	4726	4287	3878	4262	23221	9481
								2%	2%	1%	2%	9%	3%
							grade 3 events	2419	1966	2006	2199	10813	4807
								1%	1%	1%	1%	4%	2%
							grade 4 events	2360	1918	2028	2184	10704	4444
								1%	0%	1%	1%	4%	1%
							grade 5 events	6942	5949	6498	7395	21993	9207
								3%	3%	3%	3%	8%	3%
							grade 6 events	4129	3377	3463	4082	58091	11432
								2%	1%	1%	2%	23%	4%
							grade 7 events	159481	166067	166841	168943	108863	184510
								83%	86%	85%	84%	44%	77%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-123678	ACIS-123678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	216.159894	216.1491636707254	Subarray requested	NONE	NONE
[deg] Pointing Dec	22.954369	22.92881648327548	Alternating exposures requested	N	N
[deg] Pointing Roll	218.448044	218.6088482983793	[s] Primary exposure time	0.000000	3.2
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.145094680475			
[mm] SIM translation stage offset	0	0.01257209746719923			
[s] Observation start time (MET)	76255811.184000	76254565.471085			
Observation start date	2000-06-01T14:09:07	2000-06-01T13:49:25			
[s] Observation end time (MET)	76284811.184000	76285504.58472399			
Observation end date	2000-06-01T22:12:27	2000-06-01T22:25:04			
Read mode	TIMED	TIMED			

## 2.3 Aspect



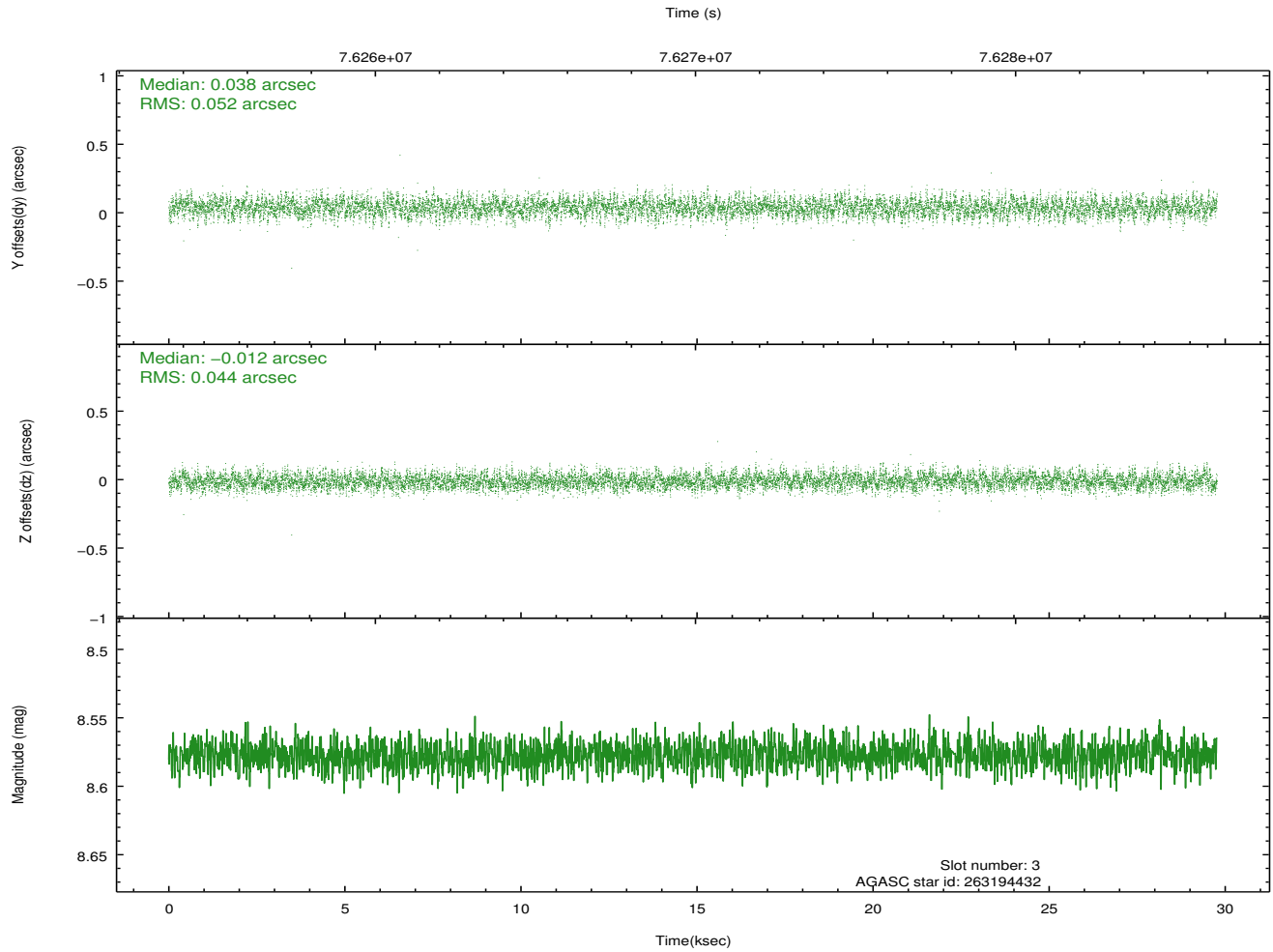
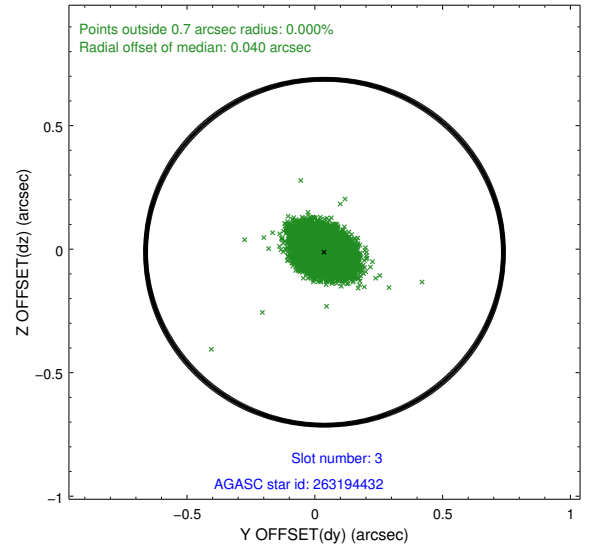
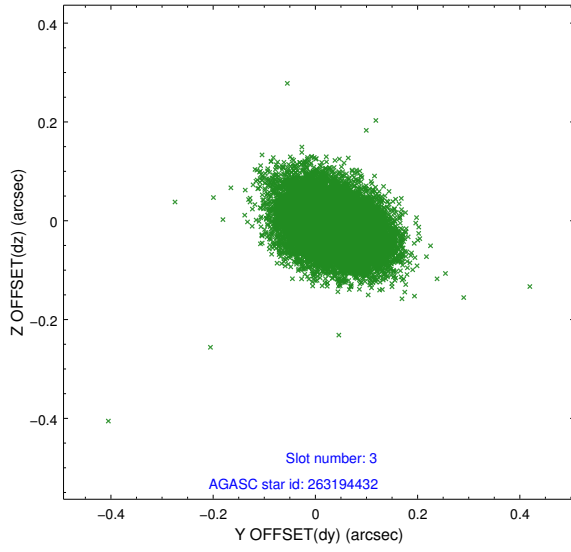


### Slot Statistics

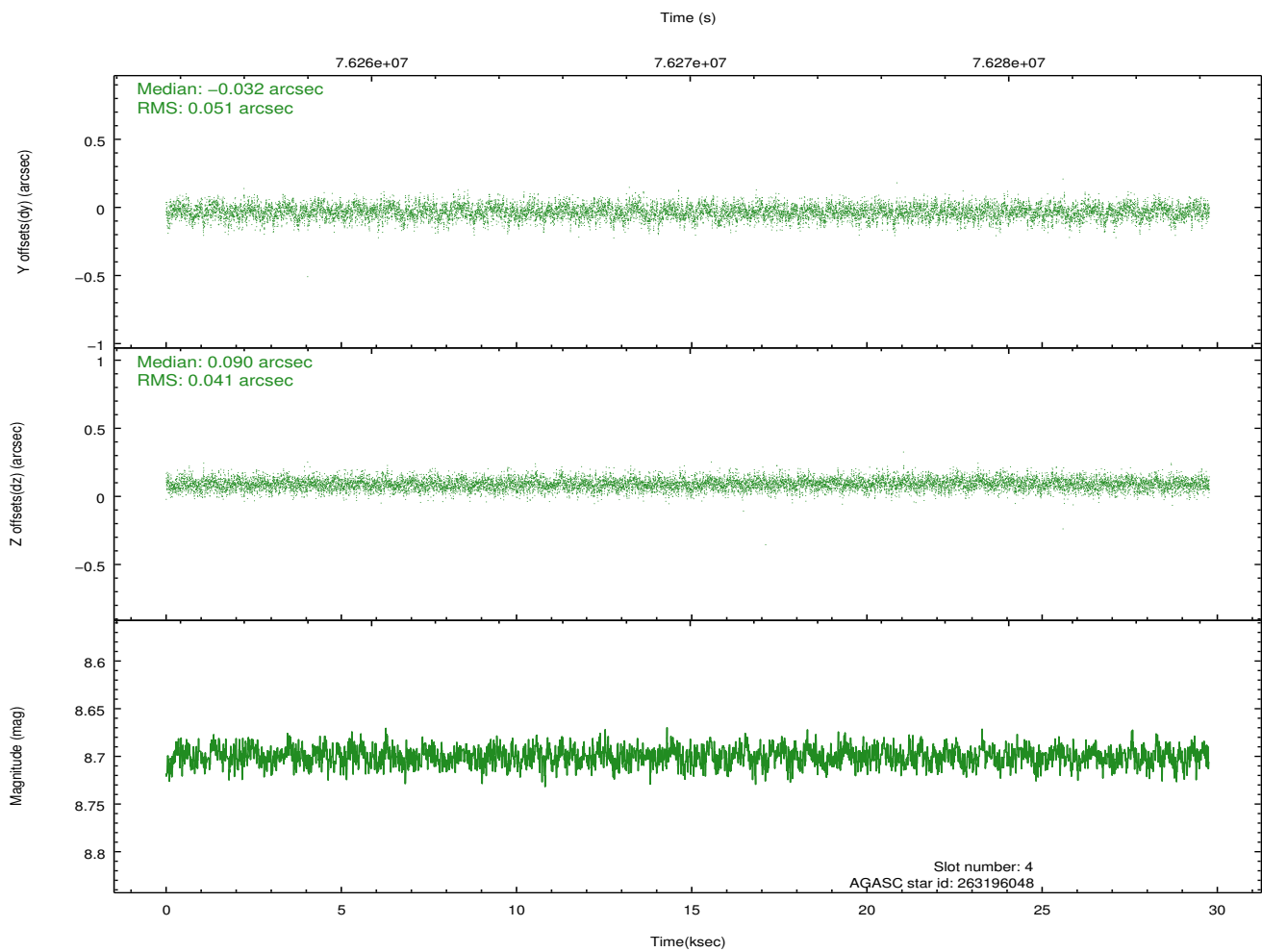
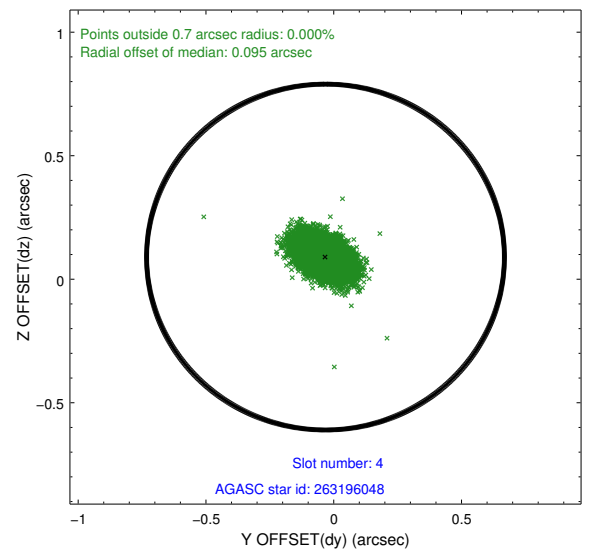
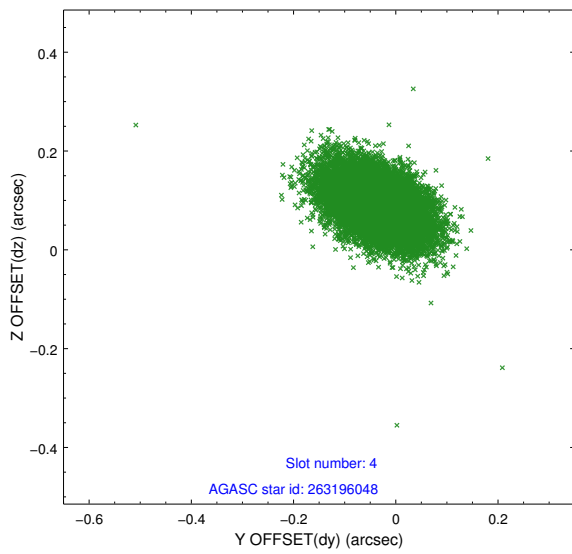
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	7259	-0.023	-0.010	0.007	0.011	0.000000	0.000000	-753.98	-1725.50
1	FID	ACIS-S-4	7.21	7258	-0.003	0.014	0.006	0.010	0.000000	0.000000	2159.30	182.91
2	FID	ACIS-S-5	7.24	7259	-0.005	0.005	0.007	0.011	0.000000	0.000000	-1806.69	176.69
3	GUIDE	263194432	8.58	14512	0.038	-0.012	0.072	0.118	216.192636	22.671847	547.95	864.20
4	GUIDE	263196048	8.70	14515	-0.032	0.090	0.067	0.117	216.468737	22.828170	-520.07	992.19
5	GUIDE	263198168	8.84	14516	-0.073	-0.044	0.087	0.144	216.844674	22.716629	-1251.67	2079.88
6	GUIDE	263198888	9.18	14512	0.104	0.007	0.081	0.137	215.996015	22.551213	1329.73	797.92
7	GUIDE	263200584	9.66	14501	-0.034	-0.043	0.102	0.170	215.715152	23.220906	555.44	-1668.09

## 2.4 Star Slots

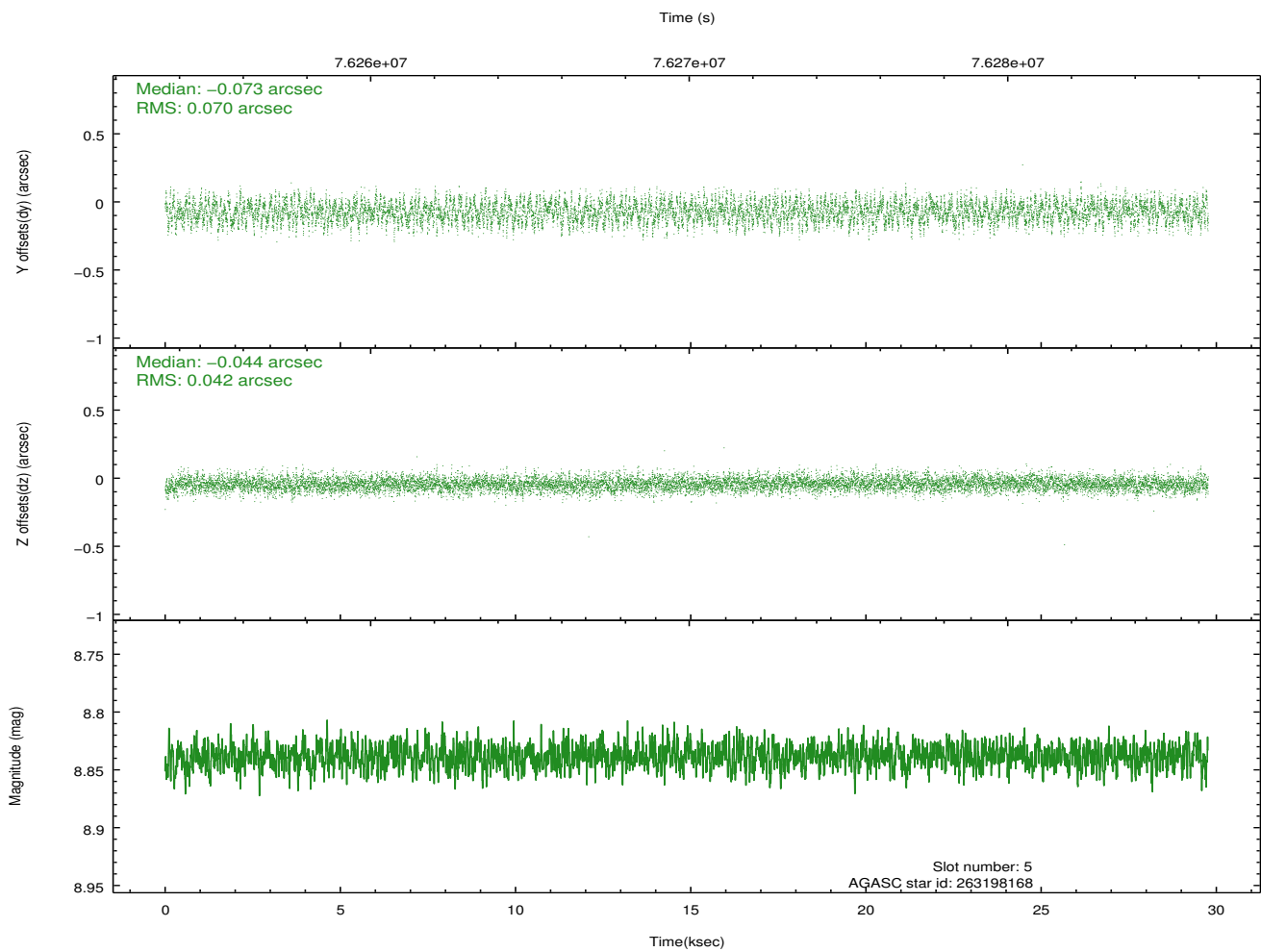
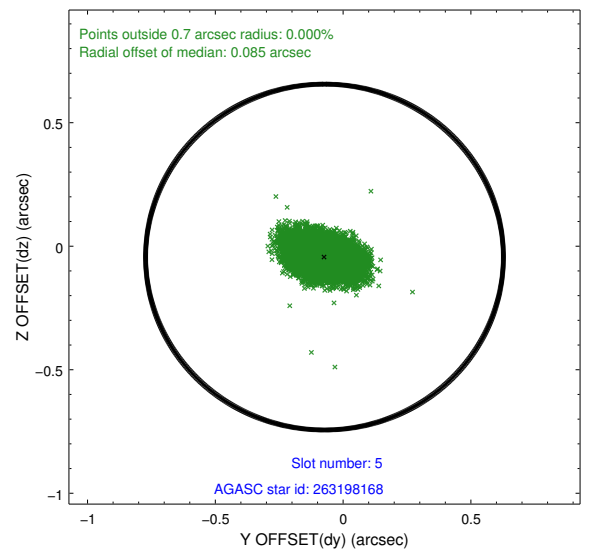
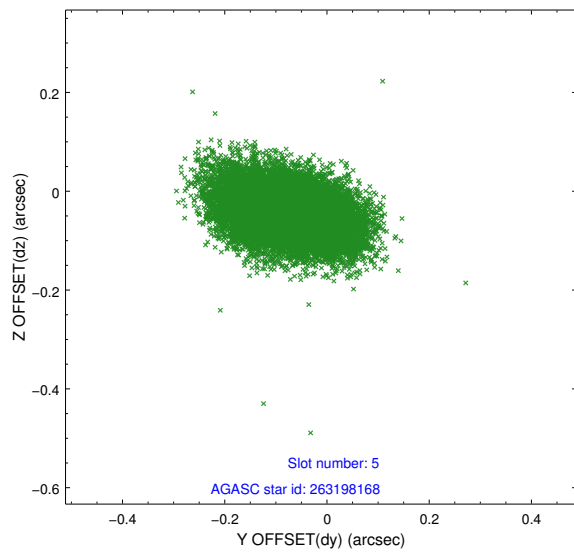
### 2.4.1 Slot 3



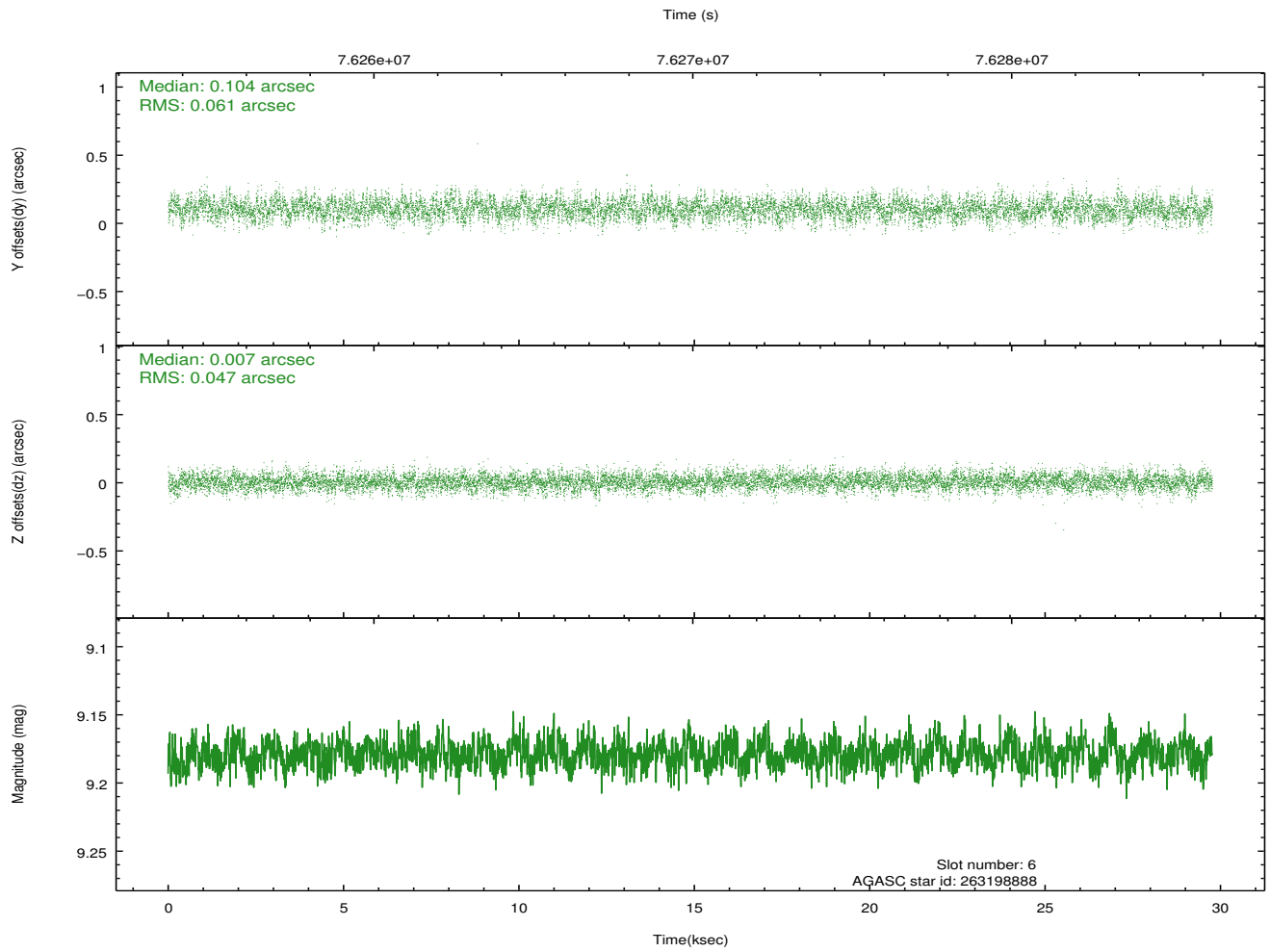
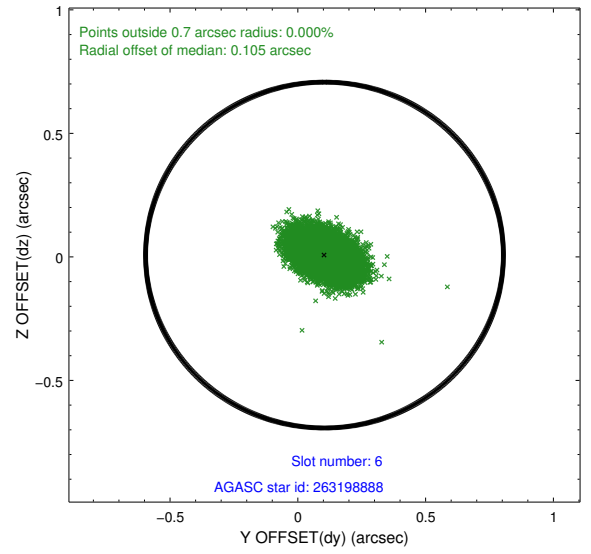
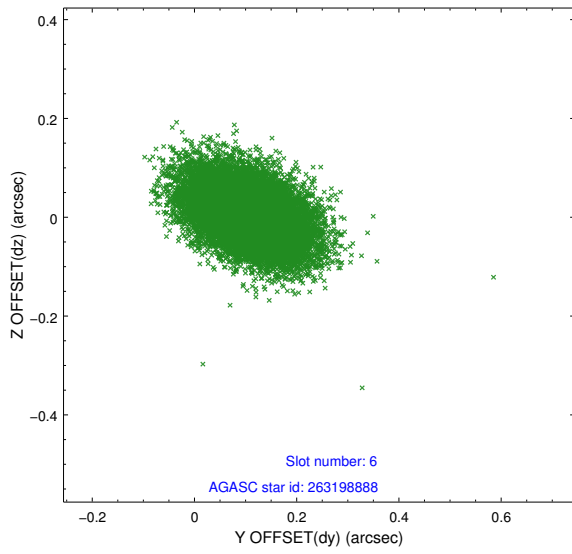
## 2.4.2 Slot 4



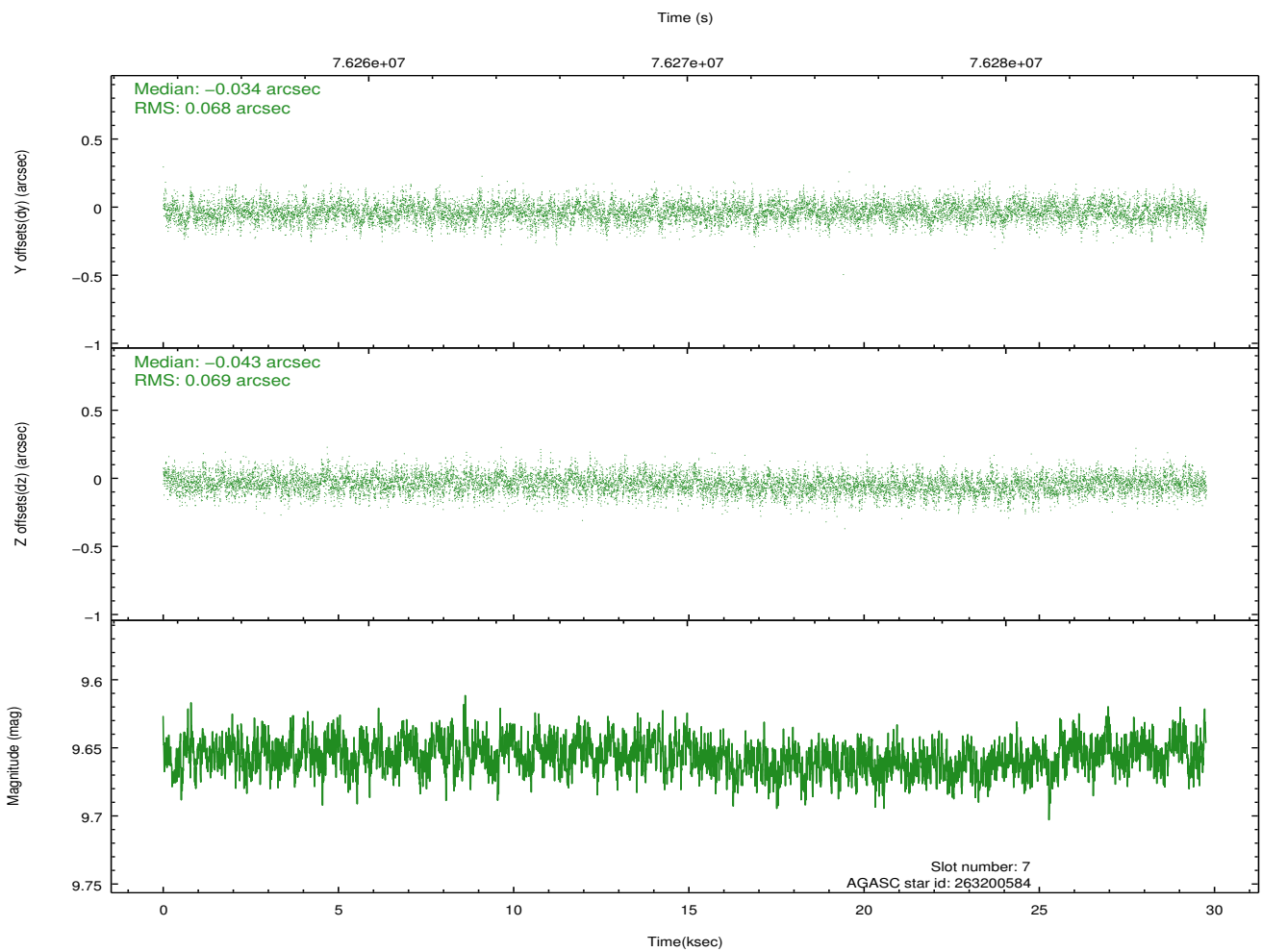
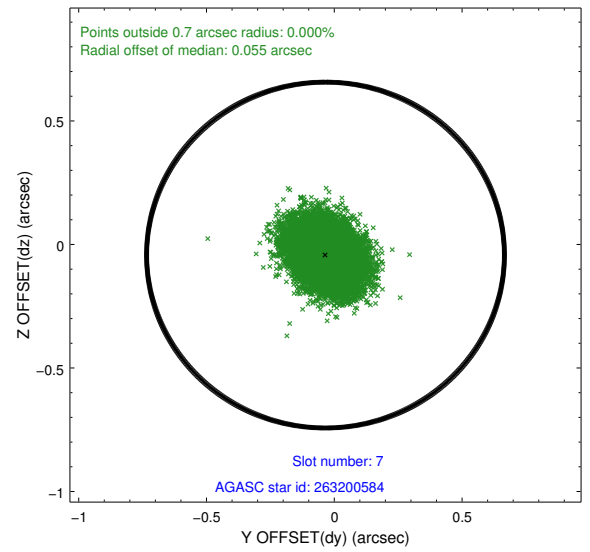
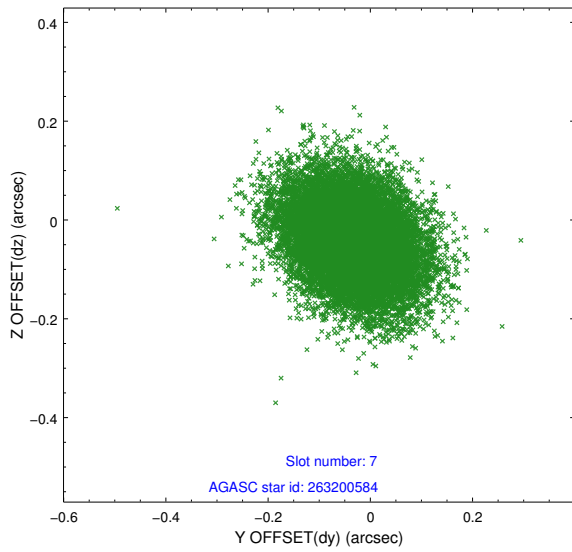
### 2.4.3 Slot 5



### 2.4.4 Slot 6

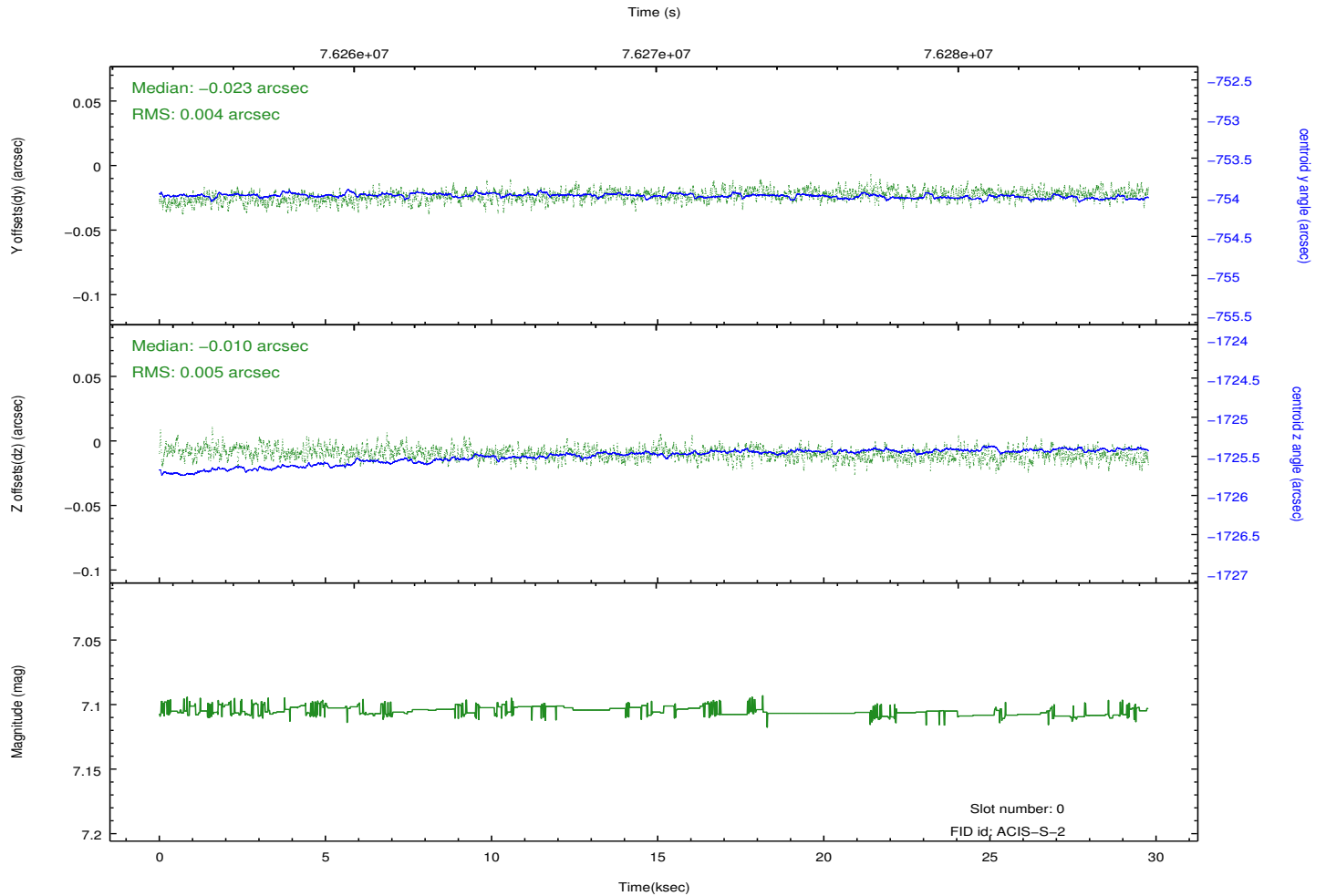
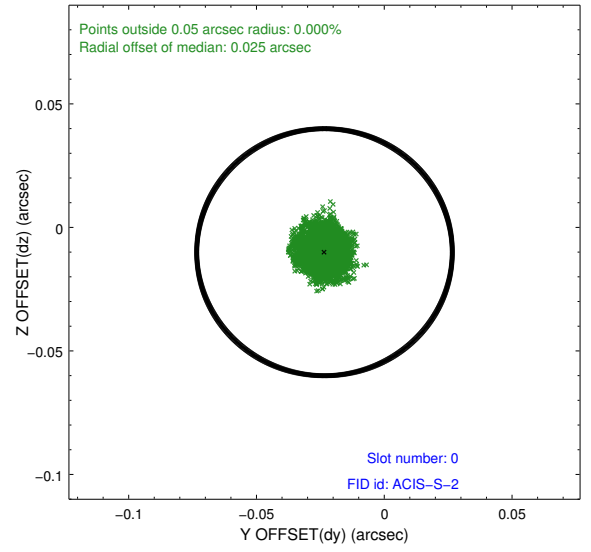
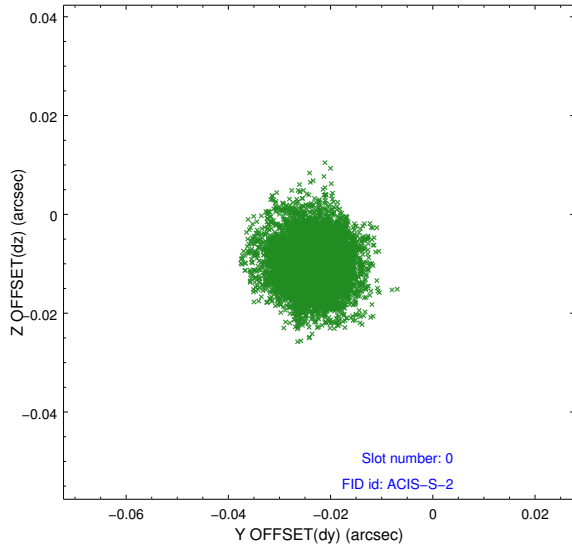


## 2.4.5 Slot 7

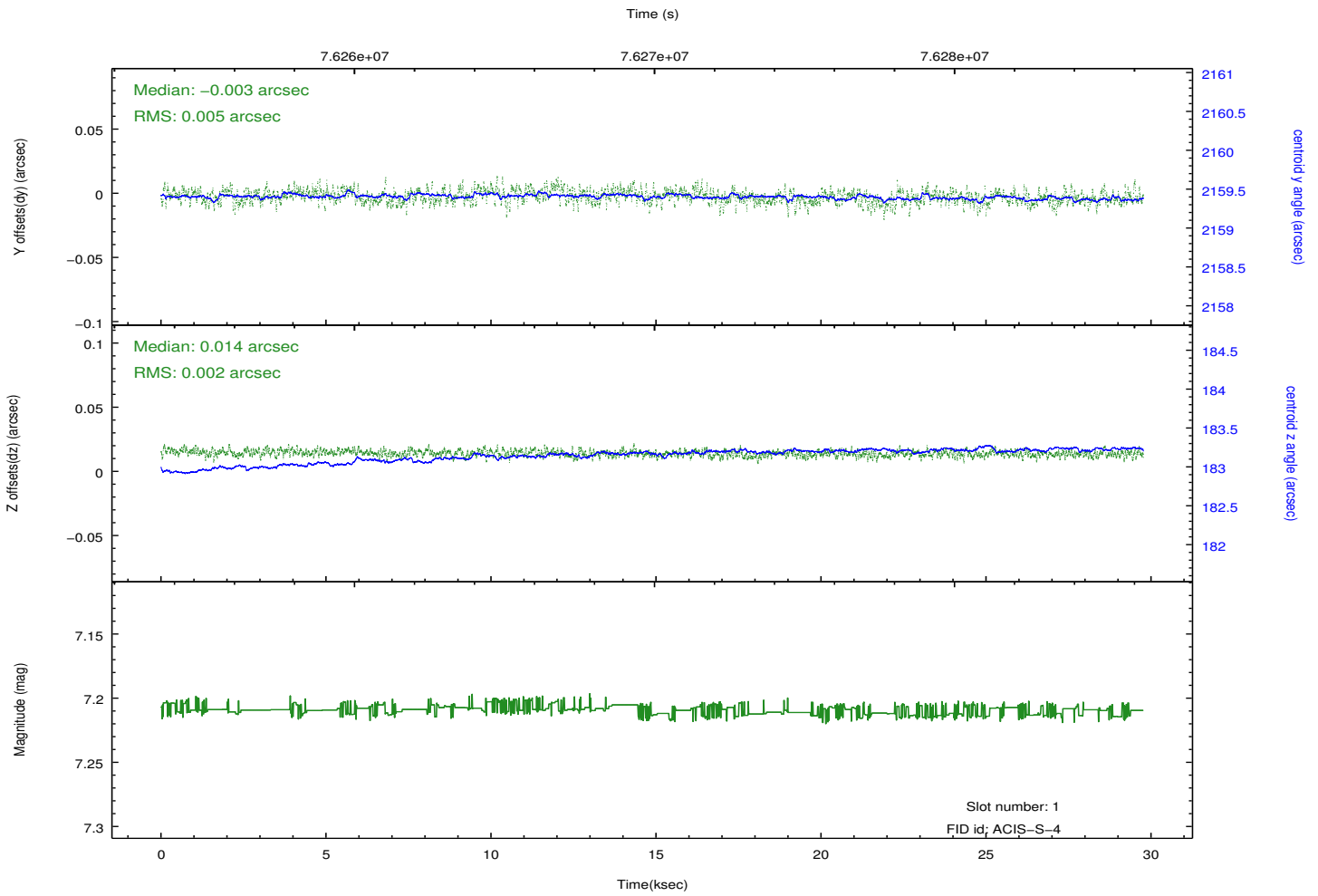
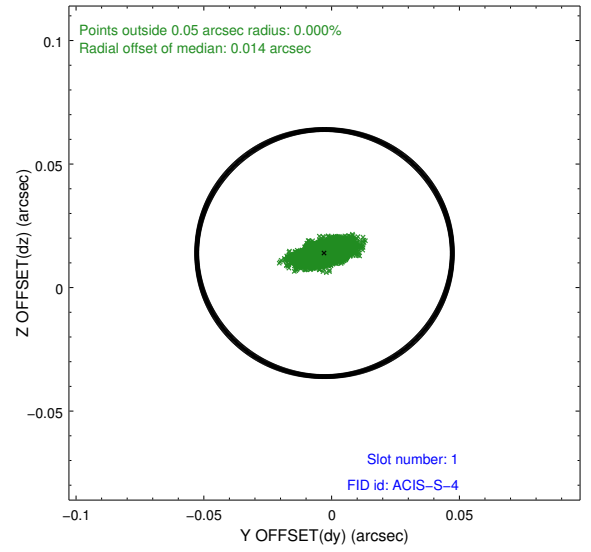
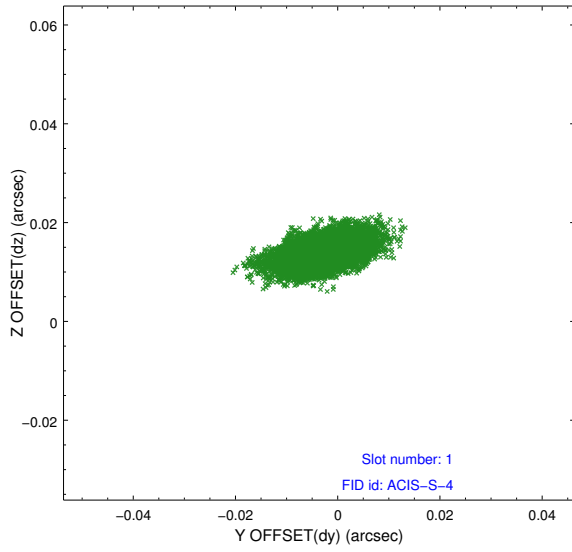


## 2.5 FID Slots

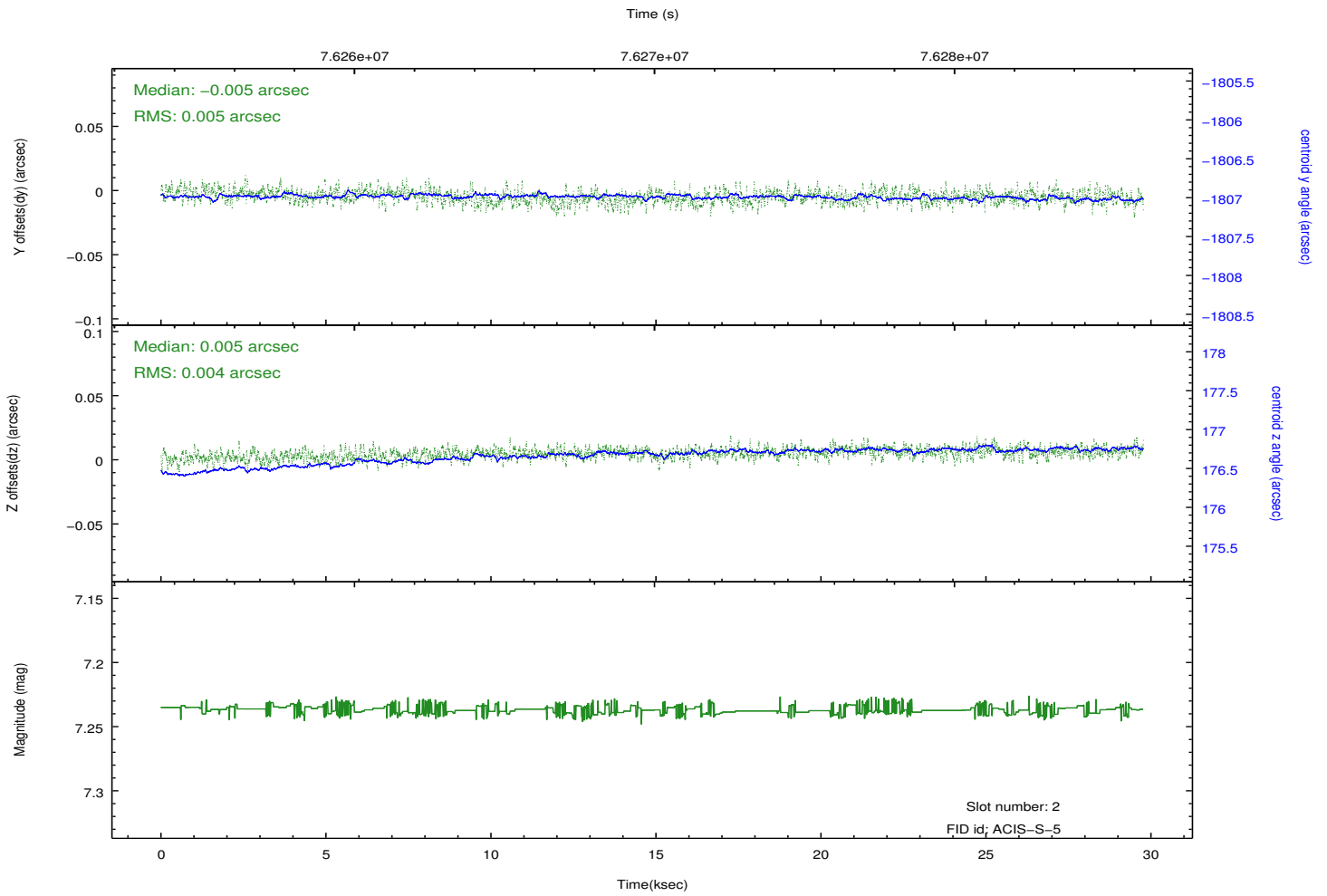
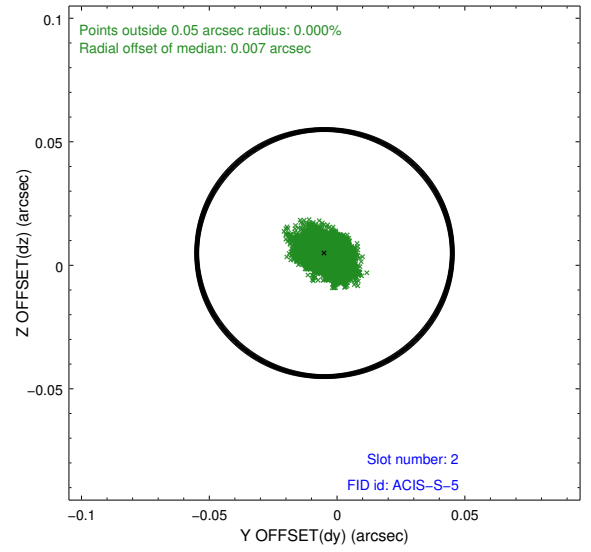
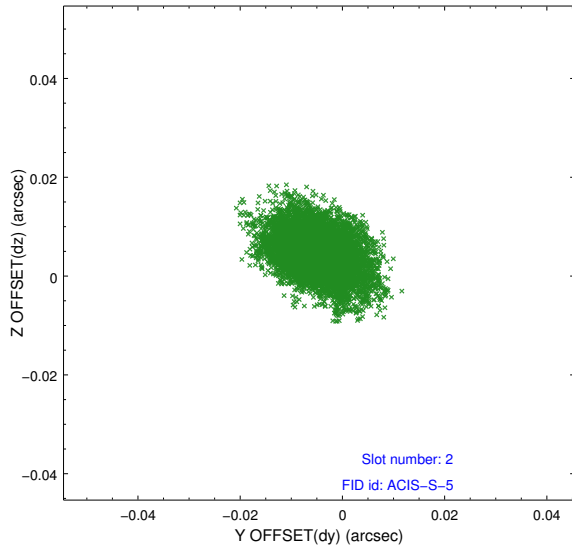
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2012.08.31
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	28.796

## A.2 Comments

Charge time for this ObsId remains at previous value of 28.796 ks although with the current processing the charge time would have been 28.83 ksec.

=====

The bias map for CCD\_ID = 8 was incomplete because of data gaps in telemetry. The bias map for chip 8 was reconstructed using scaled data from a comparable bias map for another observation to fill the data gaps. The region affected is bounded by the sky coordinates:  
(216.27224,22.96731), (216.39084,23.05436), (216.38908,23.05639), (216.27048,22.96934)