

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 14358 - L2 Version 1  
Chandra X-Ray Center

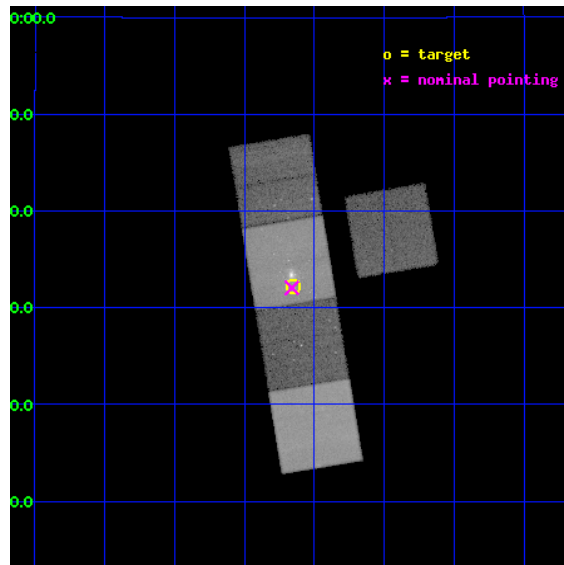
L2 Processing Date : Aug 10 2012

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# 1 Front

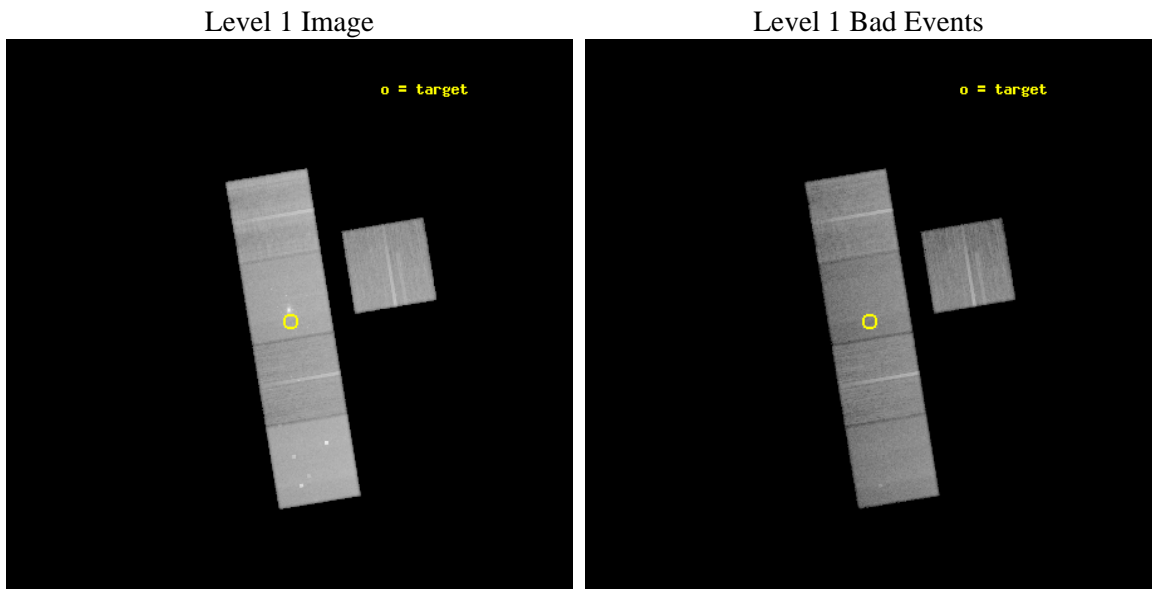
seq_num	801165	Sequence number
obs_id	14358	Observation id
title	Particle Acceleration at a Strong Shock - A Deep Chandra Observation of NGC 4552	Proposal title
observer	Dr. Ralph Kraft	Principal investigator
object	NGC 4552	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	188.913	Observer's specified target RA [deg]
dec_targ	12.5364	Observer's specified target Dec [deg]
ra_nom	188.9153025688	Nominal RA [deg]
dec_nom	12.53438082251	Nominal Dec [deg]
roll_nom	260.57899871483	Nominal Roll [deg]
revision	1	Processing version of data
ontime	50065.000385046	Sum of GTIs [s]
livetime	49410.864297698	Livetime [s]
ontime3	50061.85942471	Sum of GTIs [s]
ontime5	50065.000385046	Sum of GTIs [s]
ontime6	50061.859414637	Sum of GTIs [s]
ontime7	50065.000385046	Sum of GTIs [s]
ontime8	50058.694266498	Sum of GTIs [s]
l2events	453497	Number of level 2 events



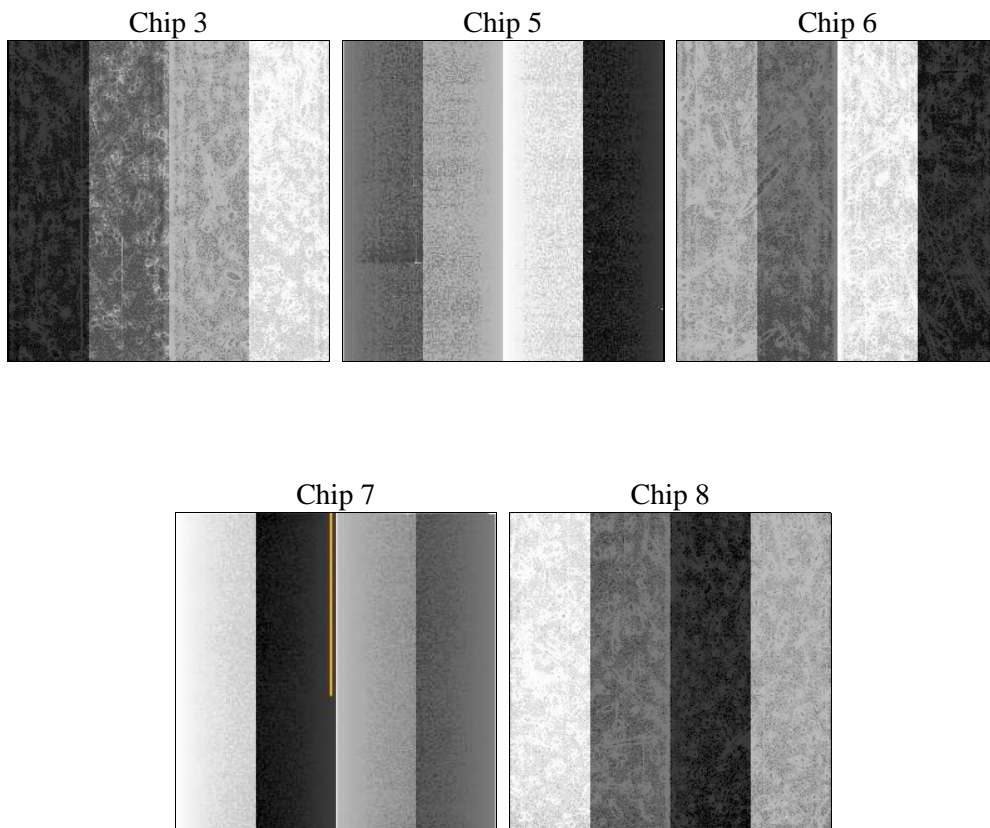
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	50000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	50065.000385046	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime3	50061.85942471	Sum of GTIs [s]
date	2012-08-10T23:22:47	Date and time of file creation	ontime5	50065.000385046	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	50061.859414637	Sum of GTIs [s]
			ontime7	50065.000385046	Sum of GTIs [s]
			ontime8	50058.694266498	Sum of GTIs [s]
			l1events	1629724	Number of level 1 events

### 2.1.4 Events

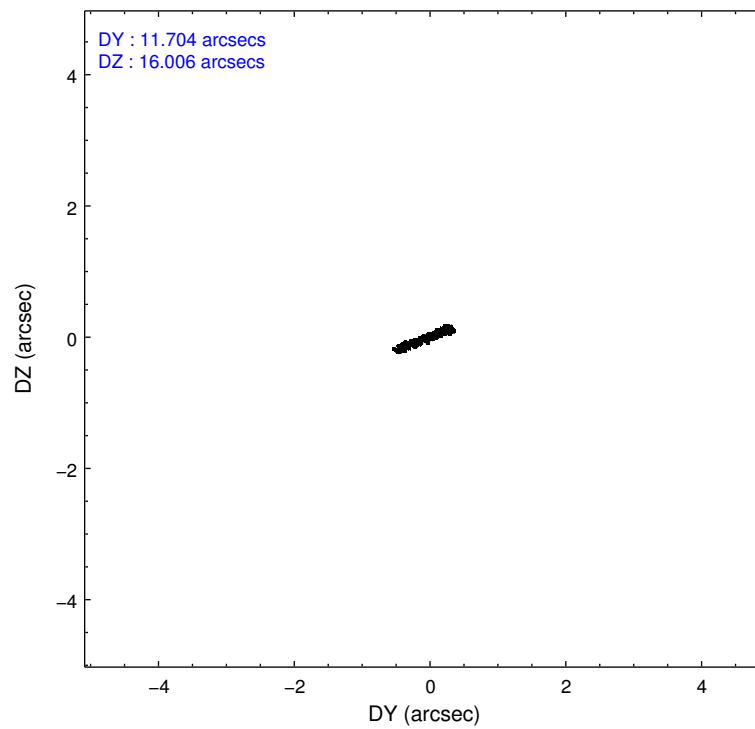
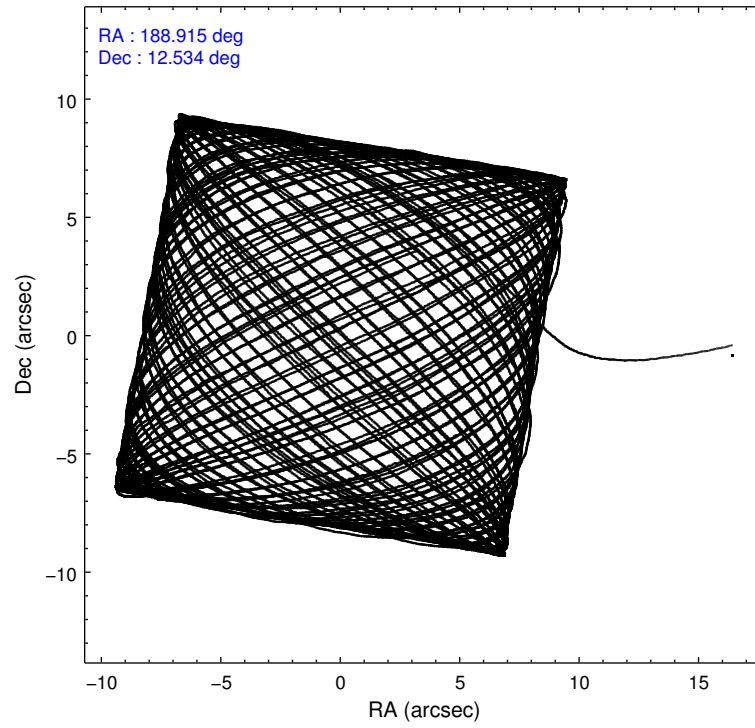
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	245991	426305	256787	359630	341011
rejected events	215219	214951	221661	191685	244830
rejected %	87%	50%	86%	53%	71%

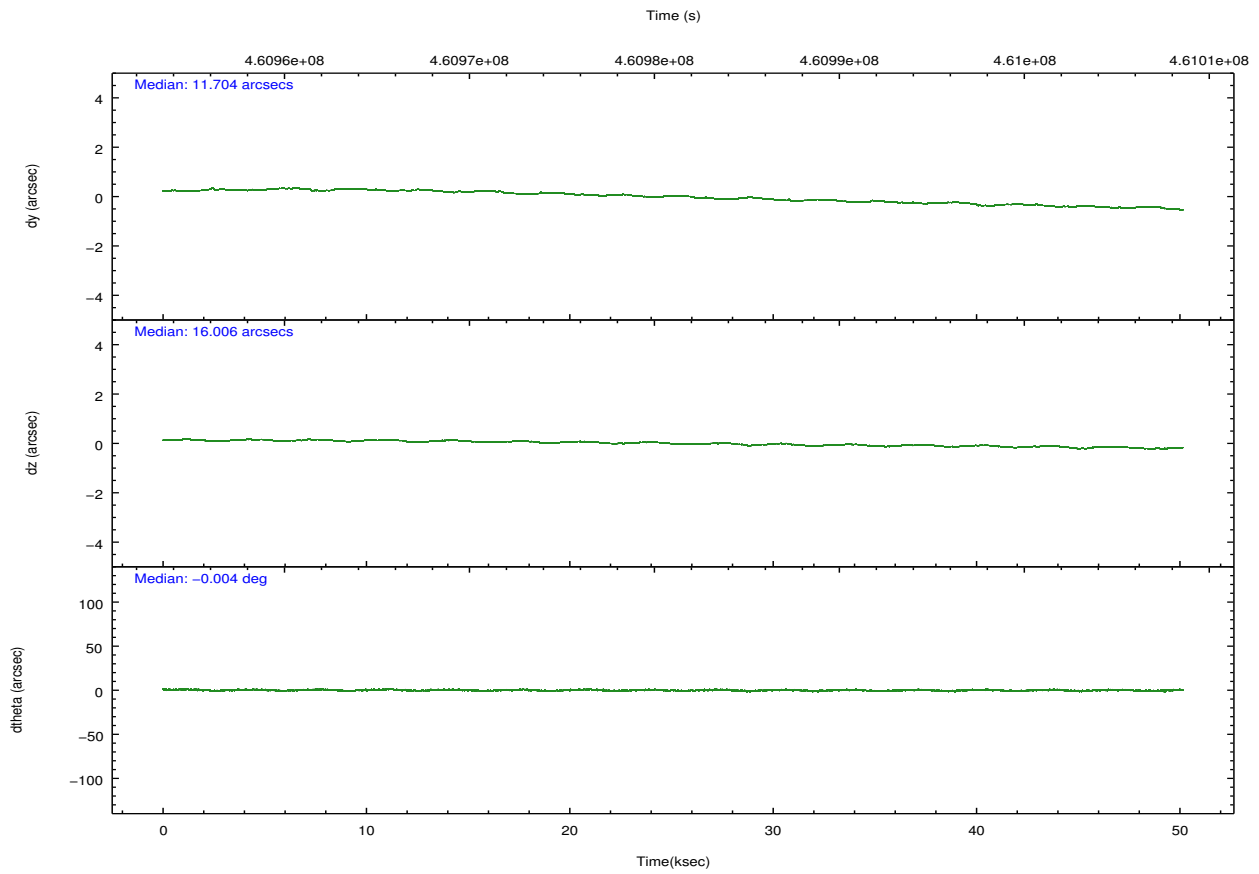
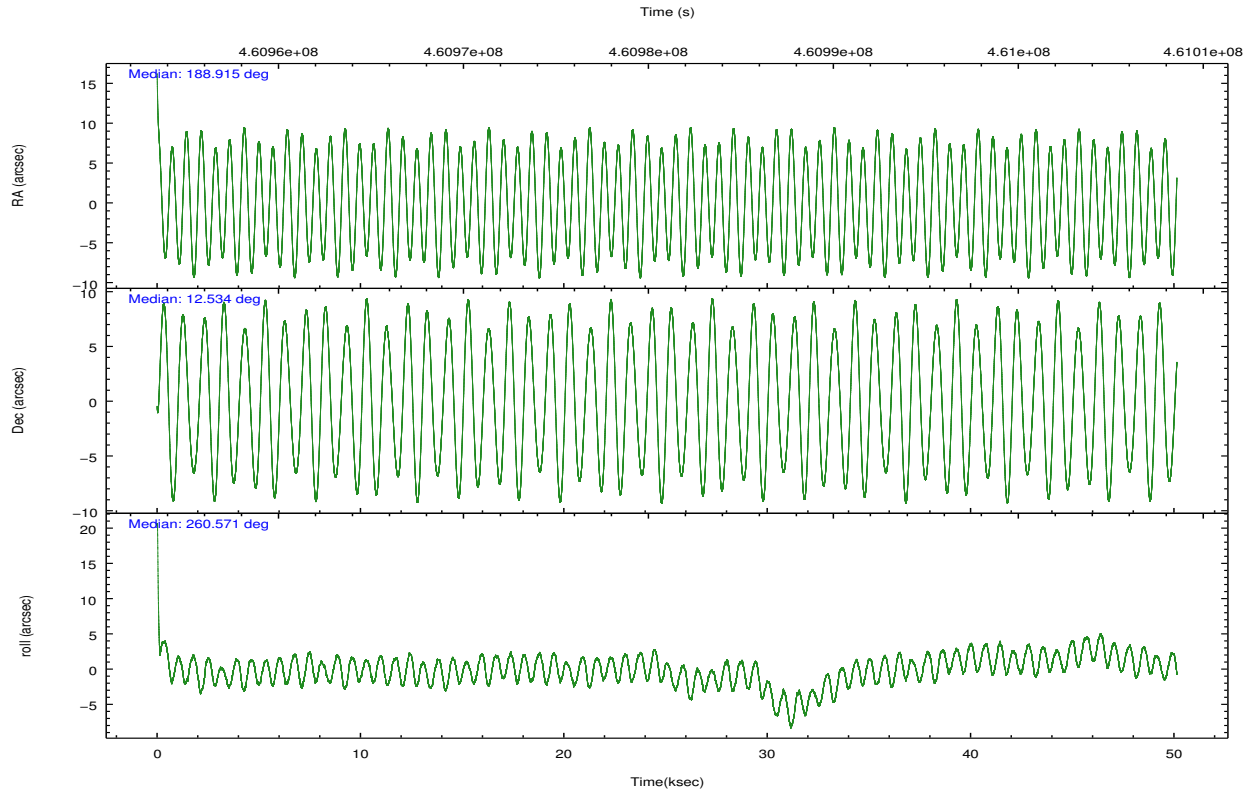
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	12062	26136	14267	19754	30762
	4%	6%	5%	5%	9%
grade 1 events	139	1011	128	405	276
	0%	0%	0%	0%	0%
grade 2 events	6572	61691	7396	35259	21673
	2%	14%	2%	9%	6%
grade 3 events	3099	7929	3264	15058	10115
	1%	1%	1%	4%	2%
grade 4 events	3141	7633	3203	14829	9439
	1%	1%	1%	4%	2%
grade 5 events	13073	31310	13223	35072	18697
	5%	7%	5%	9%	5%
grade 6 events	5904	107992	7000	83062	24203
	2%	25%	2%	23%	7%
grade 7 events	202001	182603	208306	156191	225846
	82%	42%	81%	43%	66%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-35678	ACIS-35678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	188.905109	188.9153025687953	CCD I2 on	N	N
[deg] Pointing Dec	12.559844	12.53438082251049	CCD I3 on	O1	Y
[deg] Pointing Roll	260.424583	260.5789987148331	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	460956082.184000	460955097.84889	CCD S5 on	N	N
Observation start date	2012-08-10T03:20:15	2012-08-10T03:04:57	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	461006082.184000	461007038.18916	On-chip summing requested	N	N
Observation end date	2012-08-10T17:13:35	2012-08-10T17:30:38	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



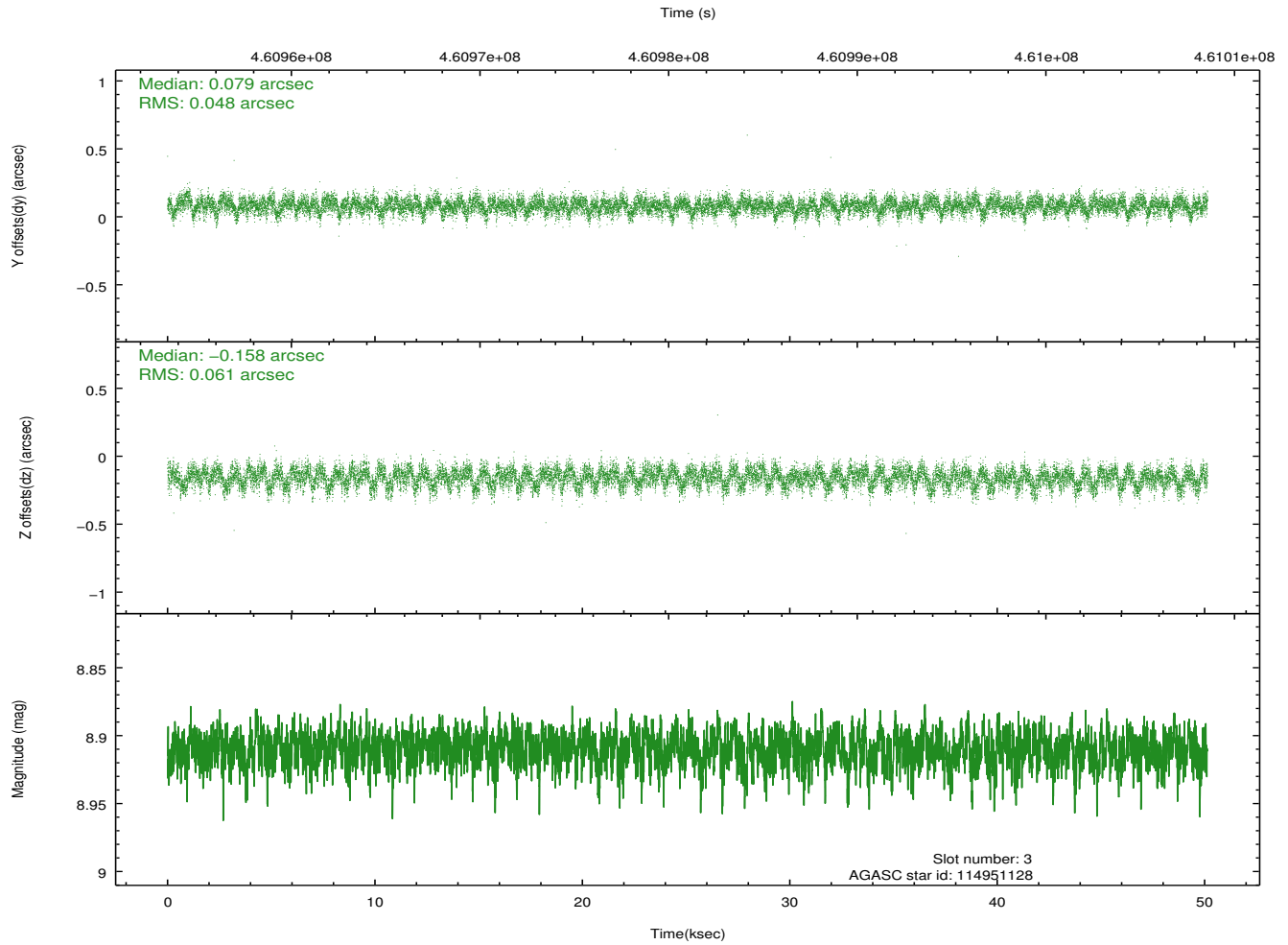
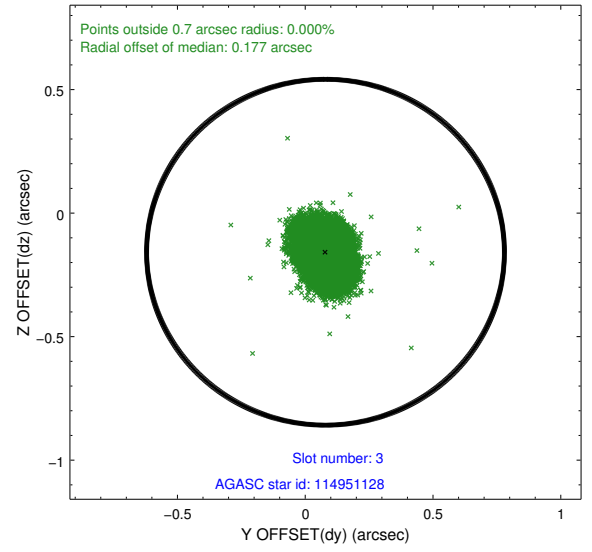
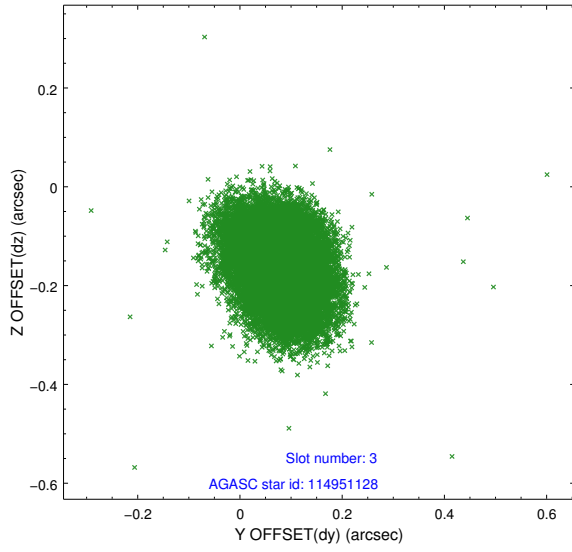


### Slot Statistics

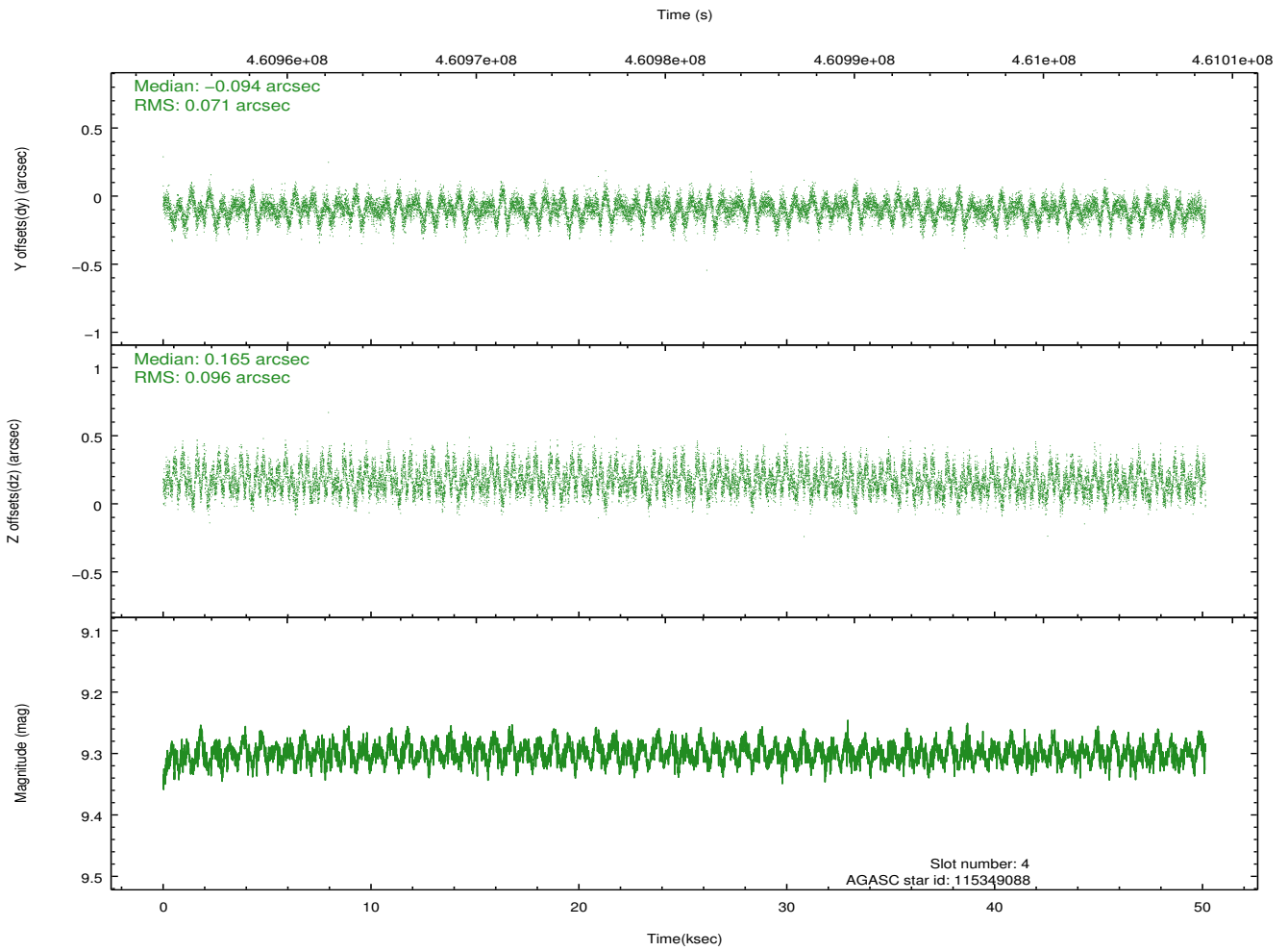
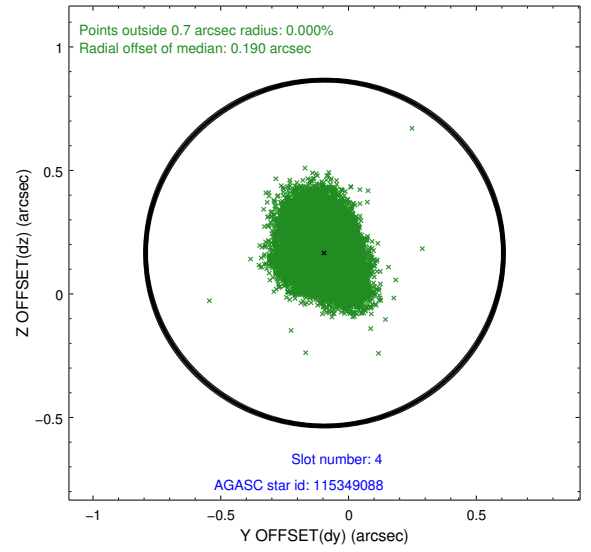
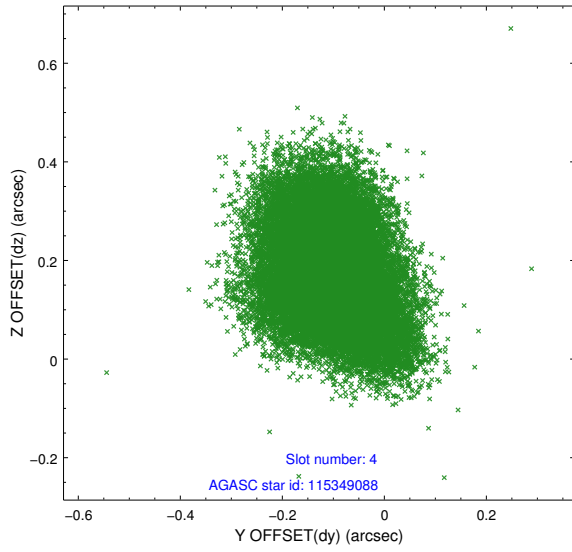
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.90	12229	-0.053	0.011	0.011	0.016	0.000000	0.000000	-764.60	-1737.35
1	FID	ACIS-S-4	6.99	12230	0.145	0.022	0.009	0.016	0.000000	0.000000	2148.88	171.18
2	FID	ACIS-S-5	7.02	12230	-0.124	-0.024	0.009	0.015	0.000000	0.000000	-1817.54	164.76
3	GUIDE	114951128	8.91	24447	0.079	-0.158	0.082	0.134	188.719863	12.459246	466.47	-581.39
4	GUIDE	115349088	9.30	24442	-0.094	0.165	0.128	0.205	188.777694	12.938966	-1271.29	-668.42
5	GUIDE	115481912	8.60	24450	0.009	-0.196	0.075	0.118	189.408526	12.669552	-685.30	1677.45
6	GUIDE	115482272	8.15	24450	-0.035	0.050	0.065	0.105	189.342268	12.983616	-1760.73	1258.06
7	GUIDE	115085264	7.86	24454	0.038	0.134	0.071	0.115	189.302301	11.817775	2400.40	1825.12

## 2.4 Star Slots

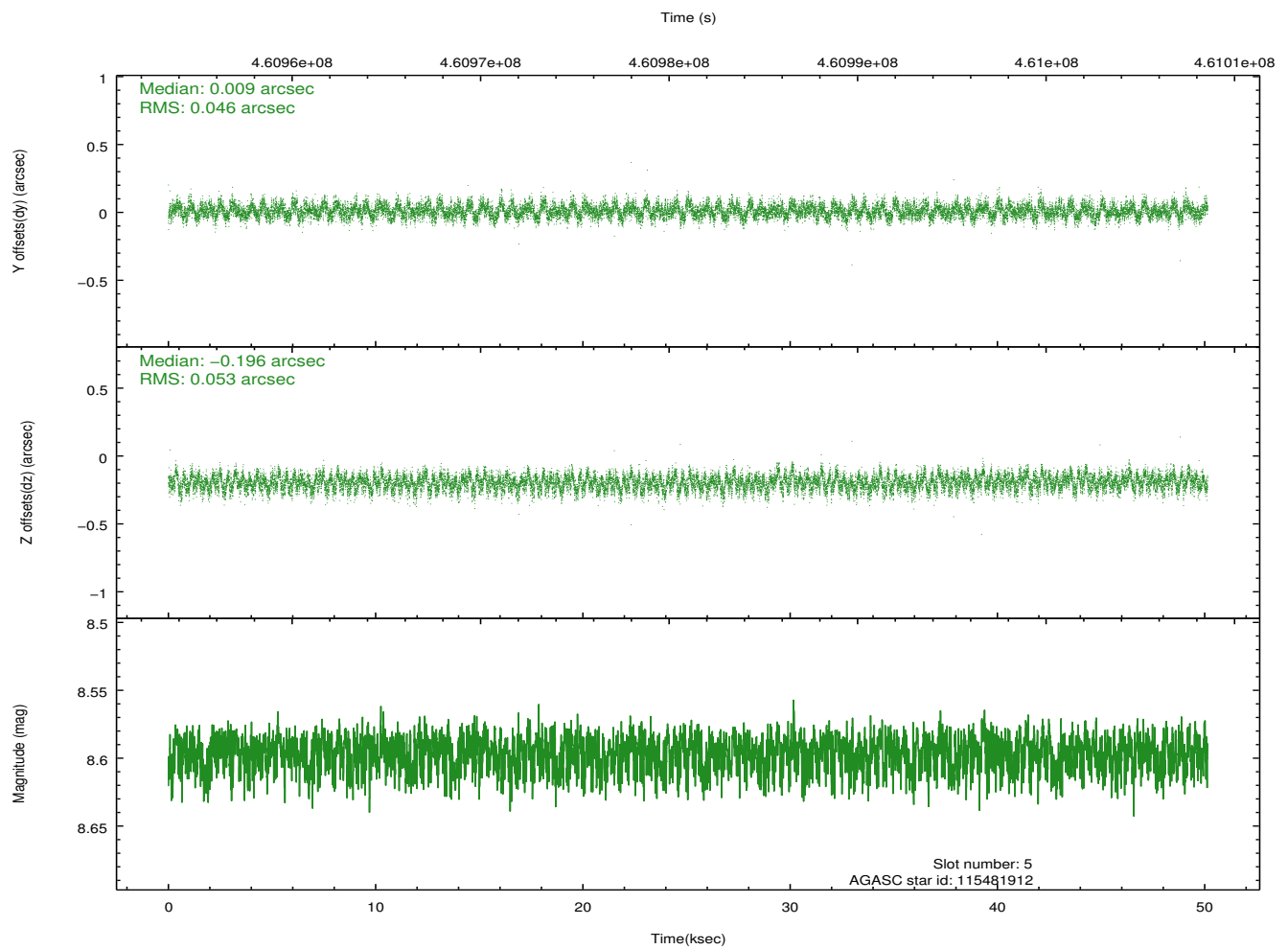
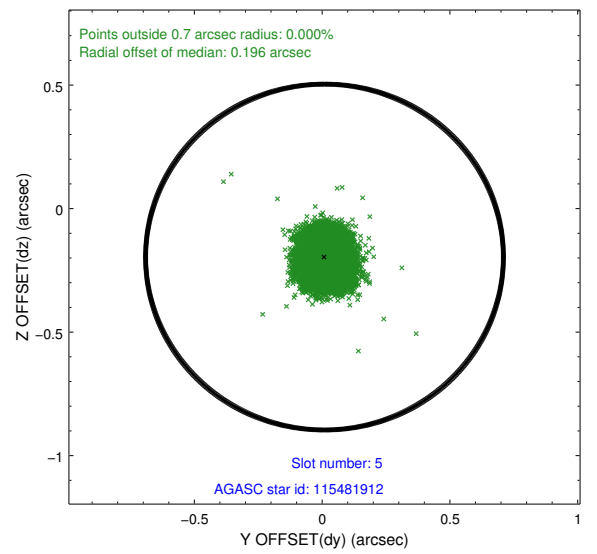
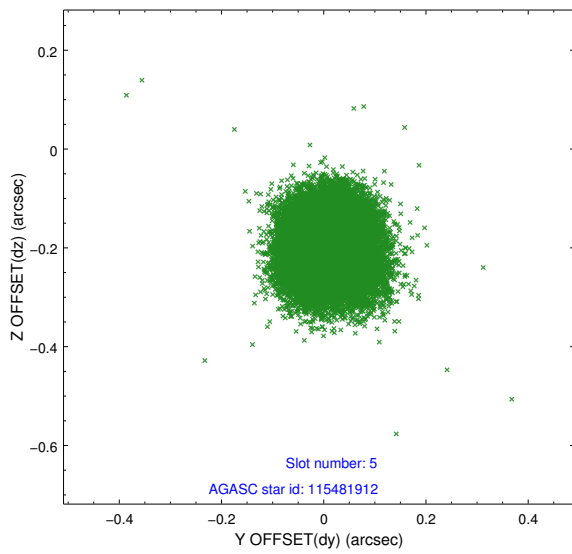
### 2.4.1 Slot 3



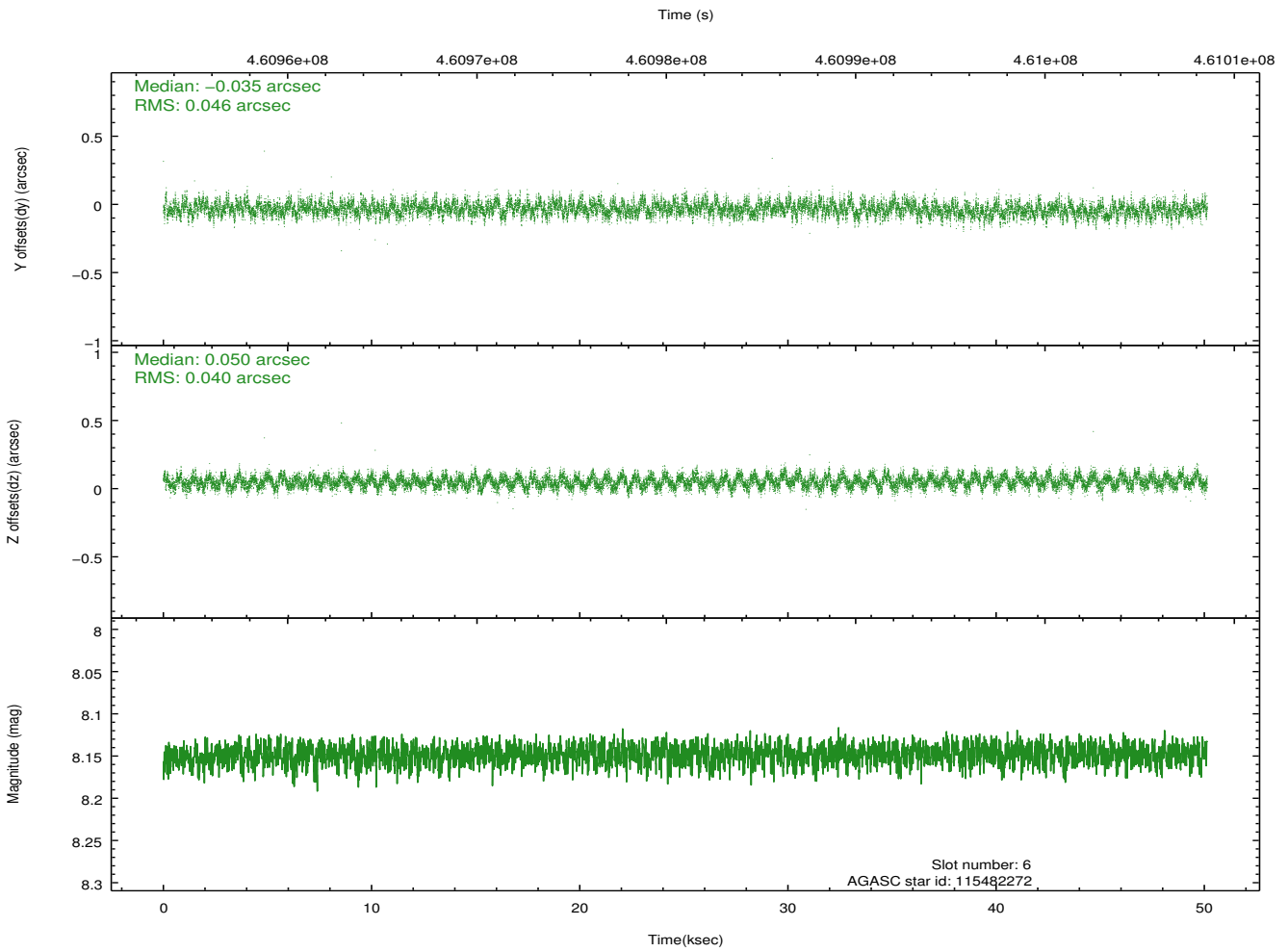
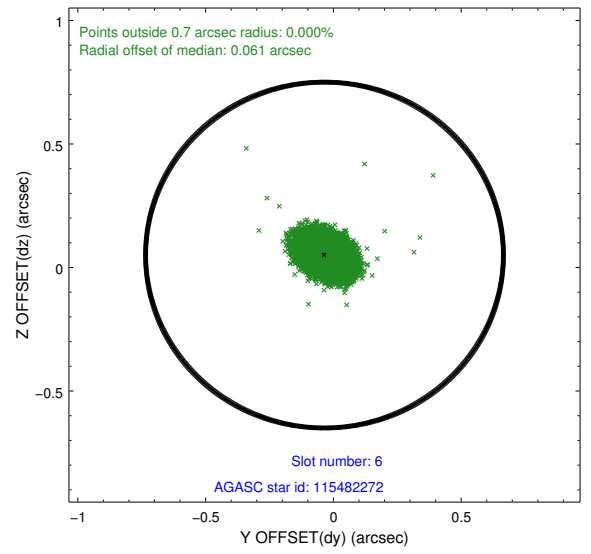
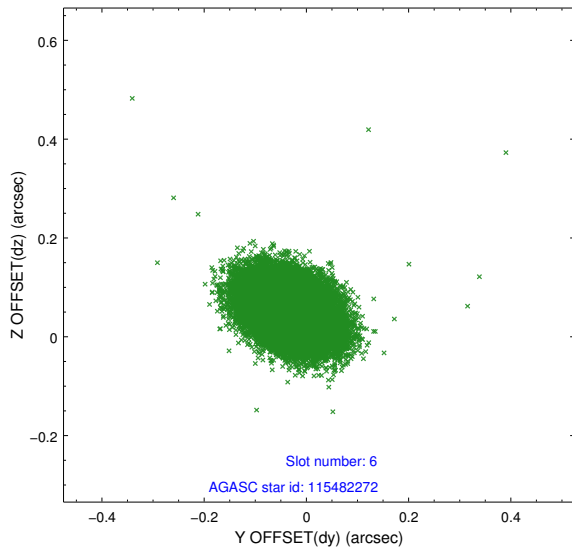
## 2.4.2 Slot 4



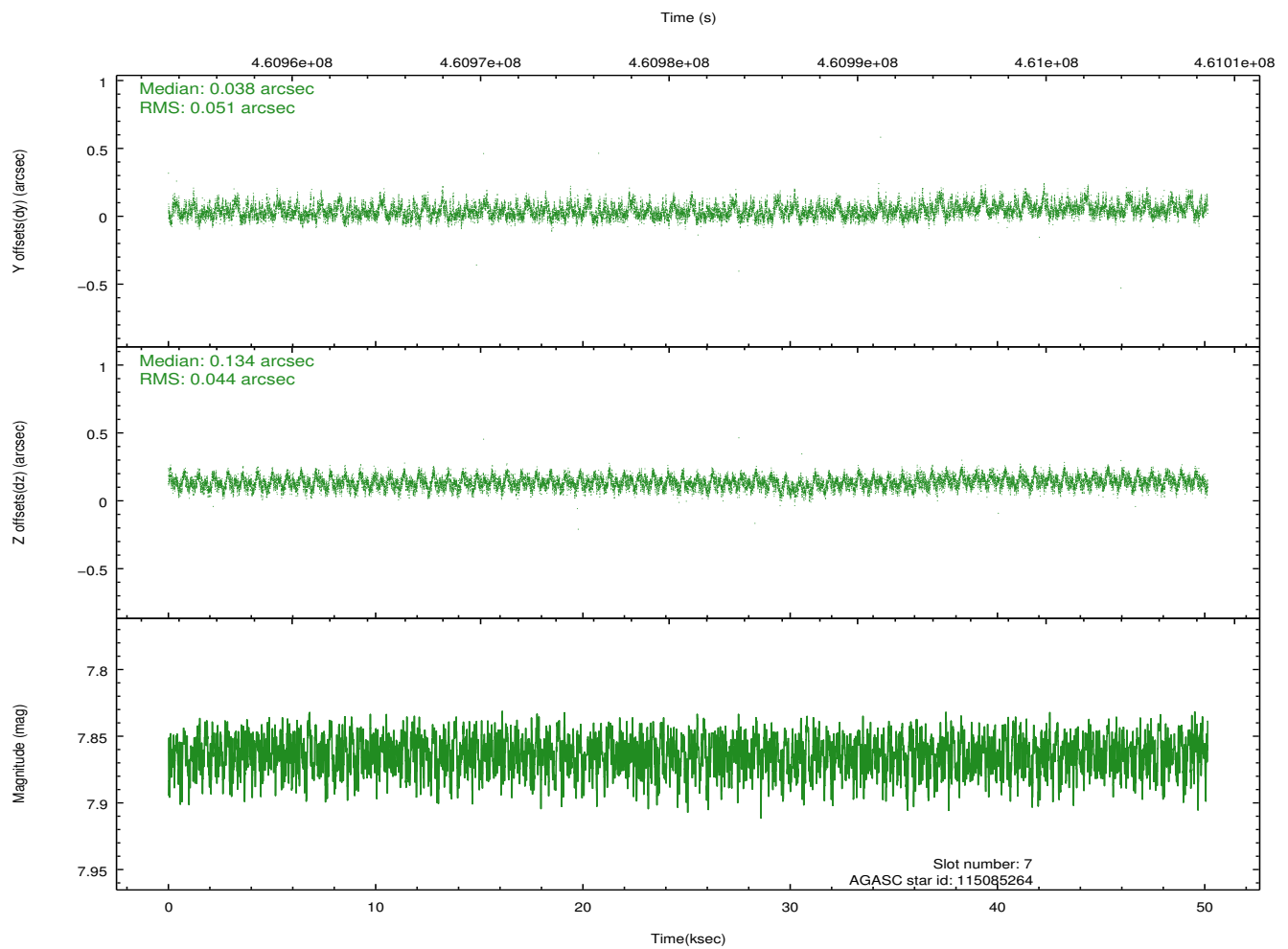
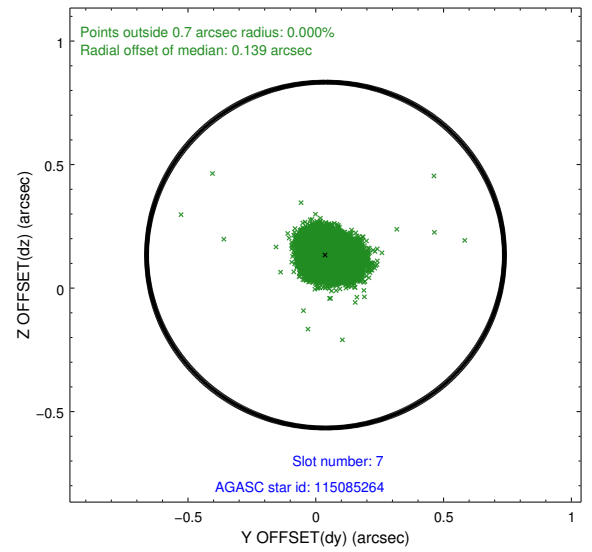
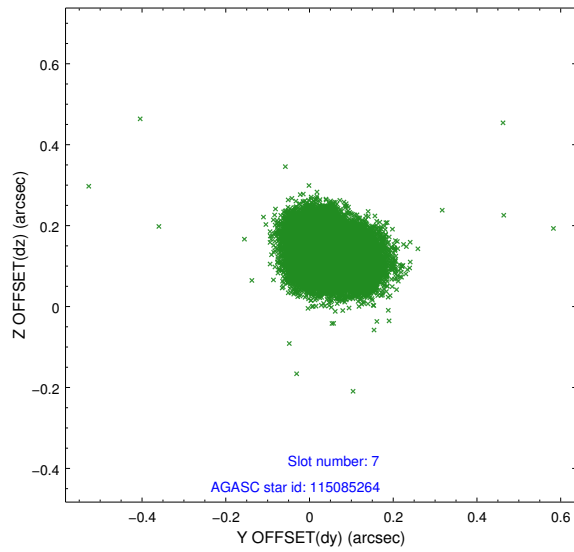
### 2.4.3 Slot 5



## 2.4.4 Slot 6

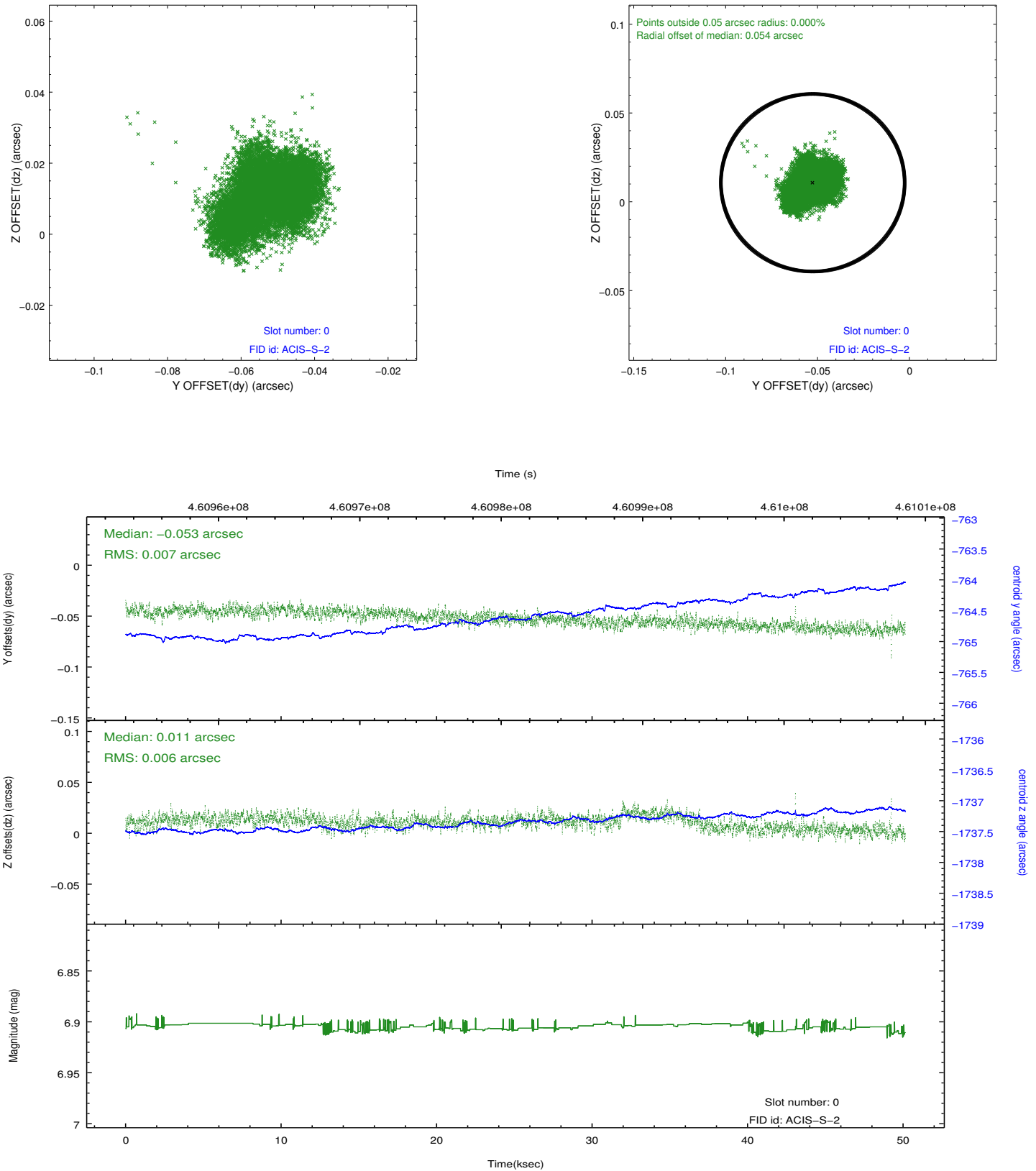


## 2.4.5 Slot 7

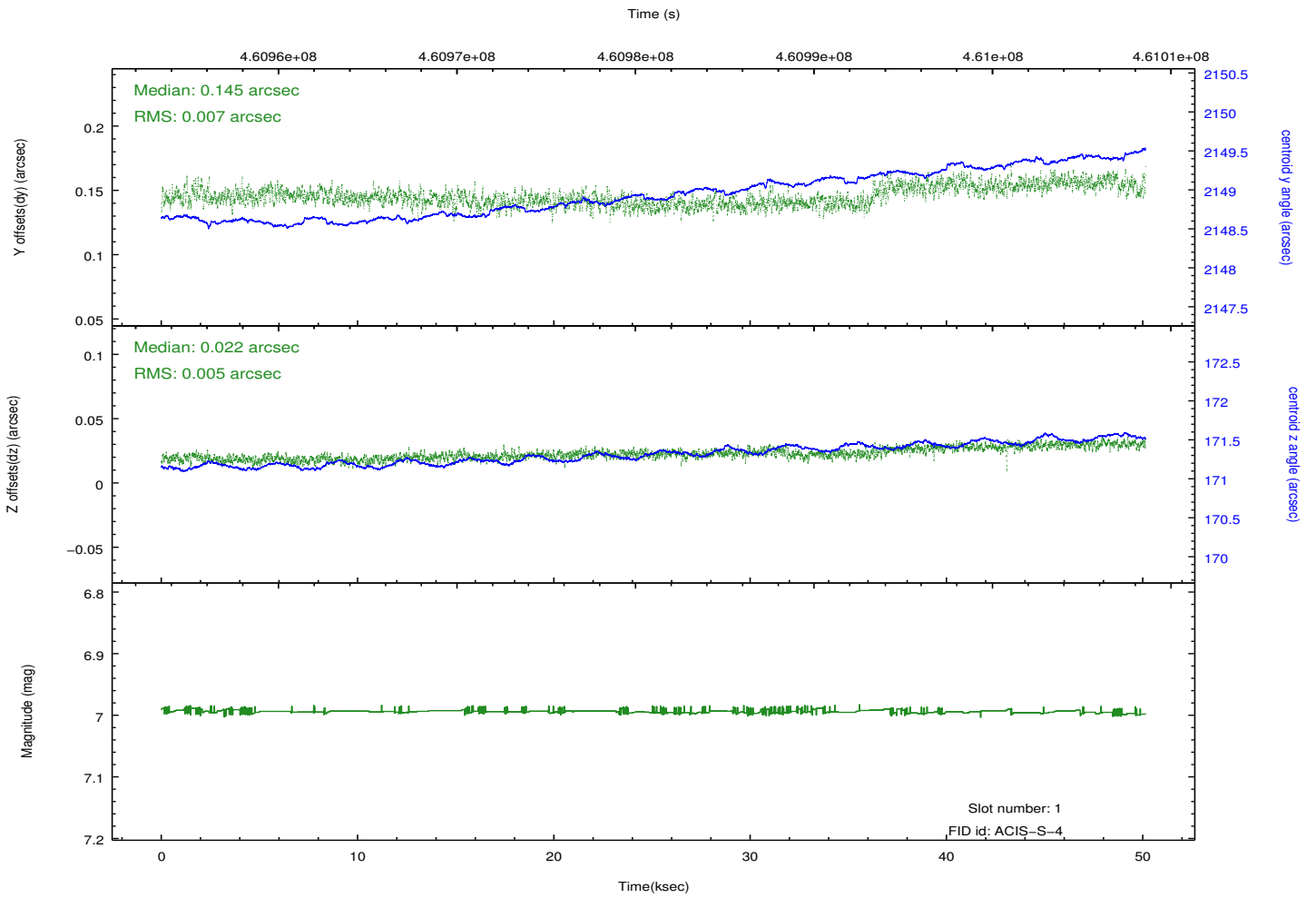
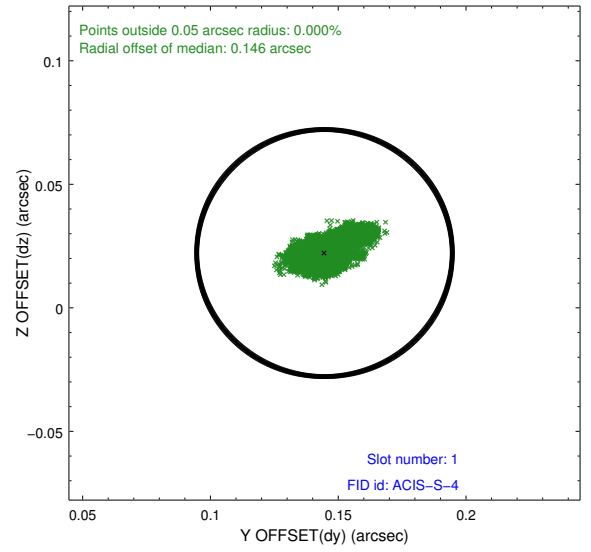
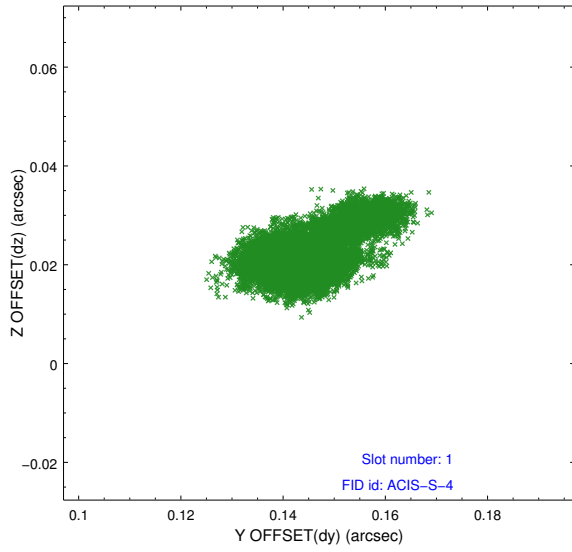


## 2.5 FID Slots

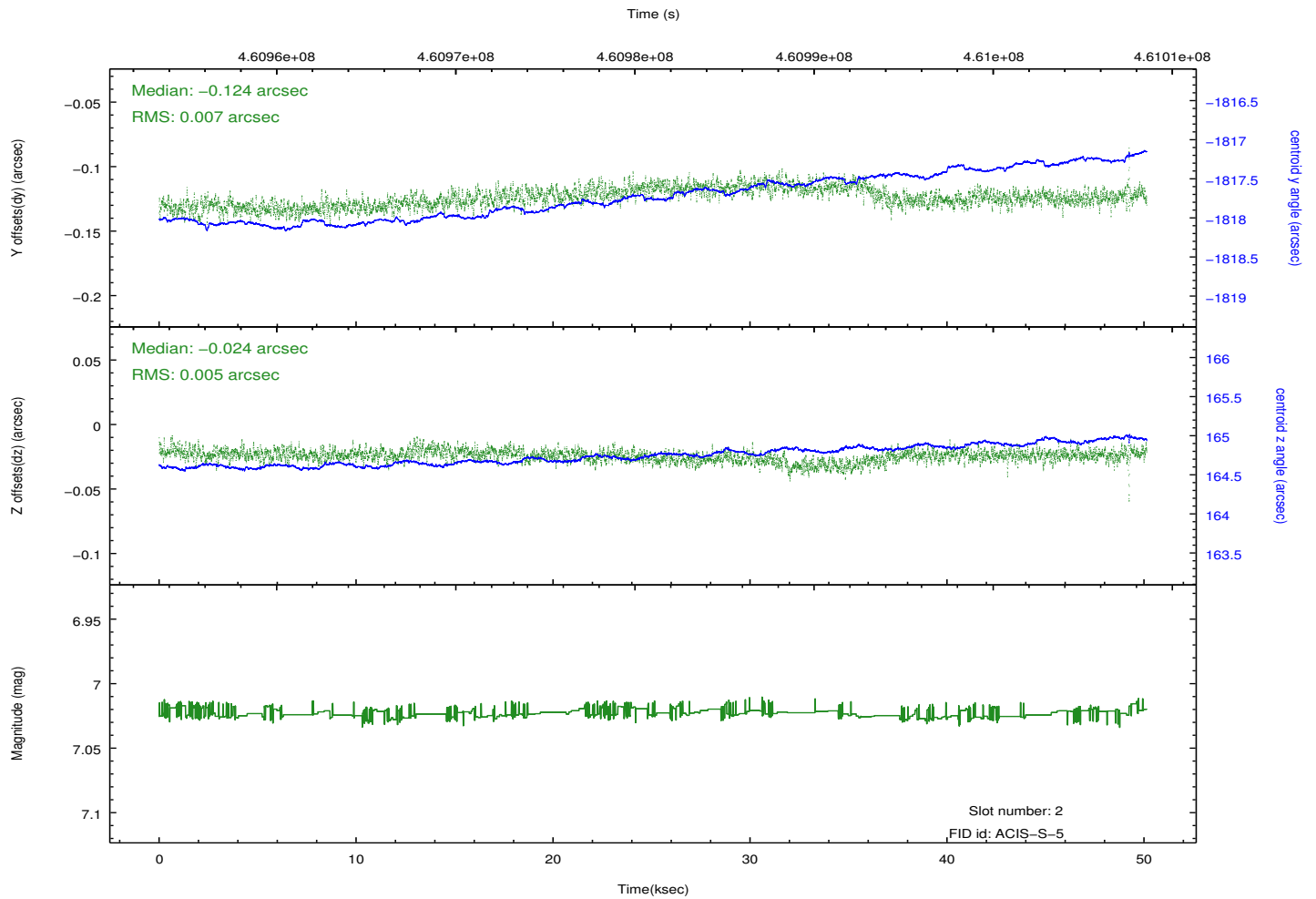
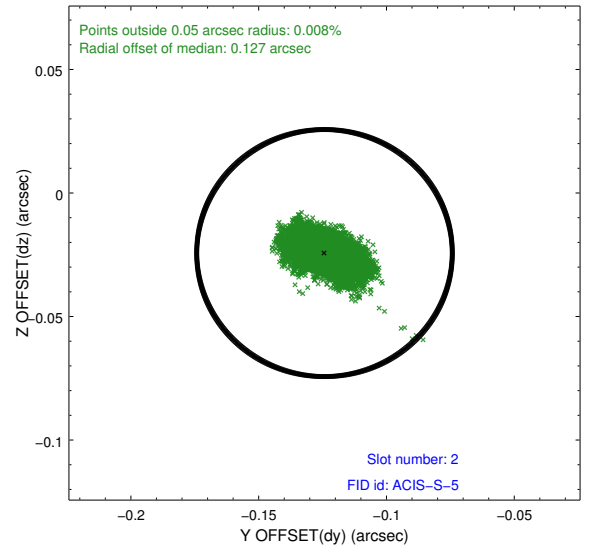
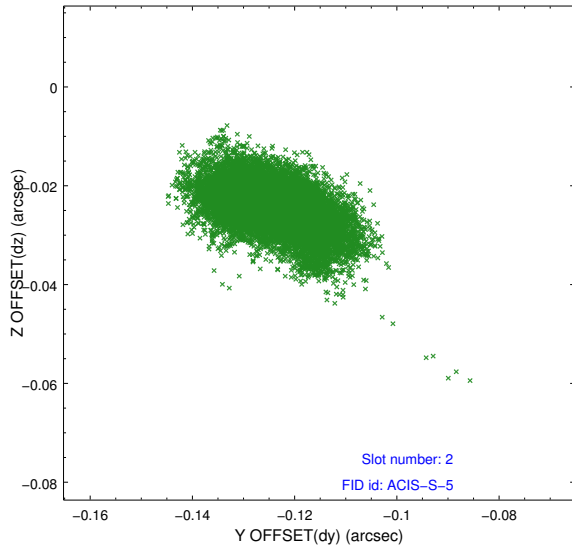
### 2.5.1 Slot 0



## 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)	2012.08.12
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	50.065000385046

### A.2 Comments