

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 7934 - L2 Version 3  
Chandra X-Ray Center

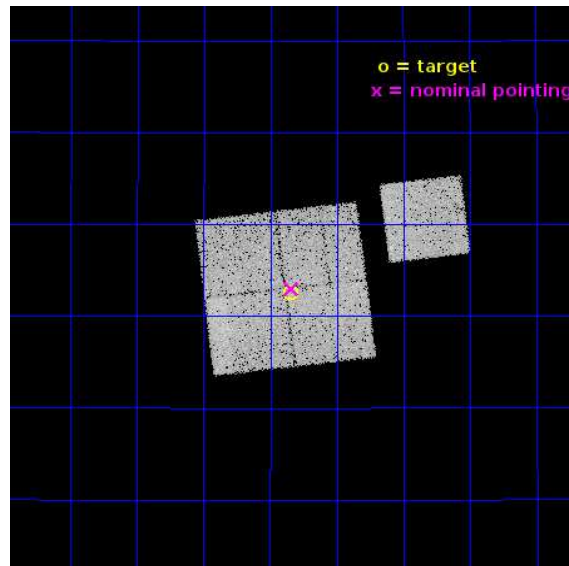
L2 Processing Date : Jul 15 2015

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# 1 Front

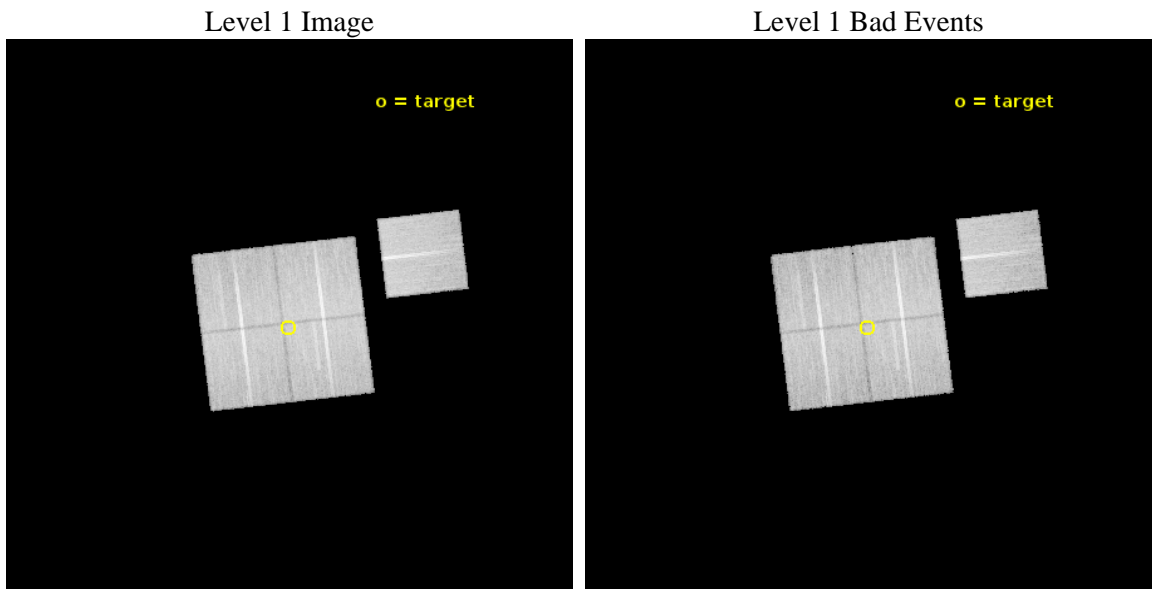
seq_num	800652	Sequence number
obs_id	7934	Observation id
title	A Complete Baryon Census in a Nearby Galaxy Group	Proposal title
observer	Dr. John Mulchaey	Principal investigator
object	NGC2563-P11	Source name
dtycycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	124.711667	Observer's specified target RA [deg]
dec_targ	21.708639	Observer's specified target Dec [deg]
ra_nom	124.71007330442	Nominal RA [deg]
dec_nom	21.716586908185	Nominal Dec [deg]
roll_nom	83.209271203588	Nominal Roll [deg]
revision	3	Processing version of data
ontime	19126.725096941	Sum of GTIs [s]
livetime	18876.820352659	Livetime [s]
ontime0	19126.725096941	Sum of GTIs [s]
ontime1	19123.58409667	Sum of GTIs [s]
ontime2	19126.725096941	Sum of GTIs [s]
ontime3	19126.725096941	Sum of GTIs [s]
ontime6	19123.584116638	Sum of GTIs [s]
l2events	67095	Number of level 2 events



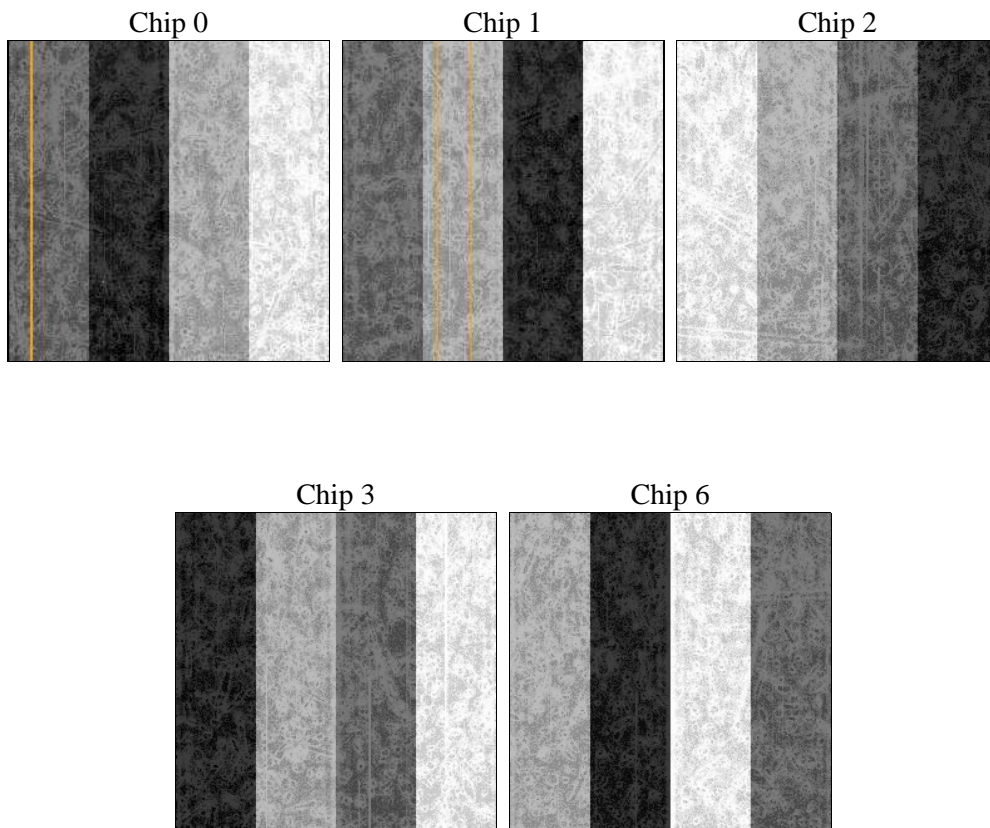
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.1	Processing system revision	ontime	19126.725096941	Sum of GTIs [s]
caldsver	4.6.8	&#160	ontime0	19126.725096941	Sum of GTIs [s]
date	2015-07-15T16:08:12	Date and time of file creation	ontime1	19123.58409667	Sum of GTIs [s]
revision	3	Processing version of data	ontime2	19126.725096941	Sum of GTIs [s]
			ontime3	19126.725096941	Sum of GTIs [s]
			ontime6	19123.584116638	Sum of GTIs [s]
			l1events	826198	Number of level 1 events

### 2.1.4 Events

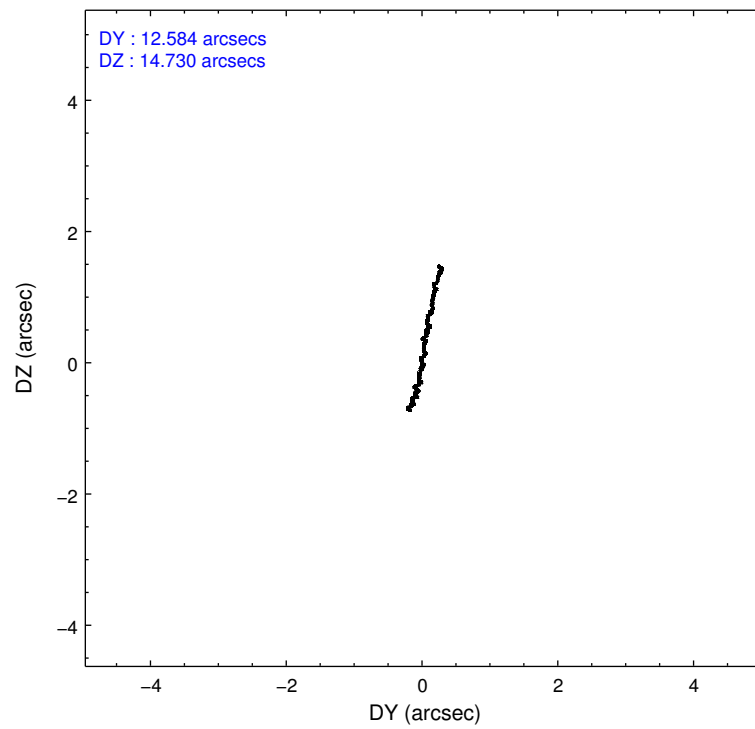
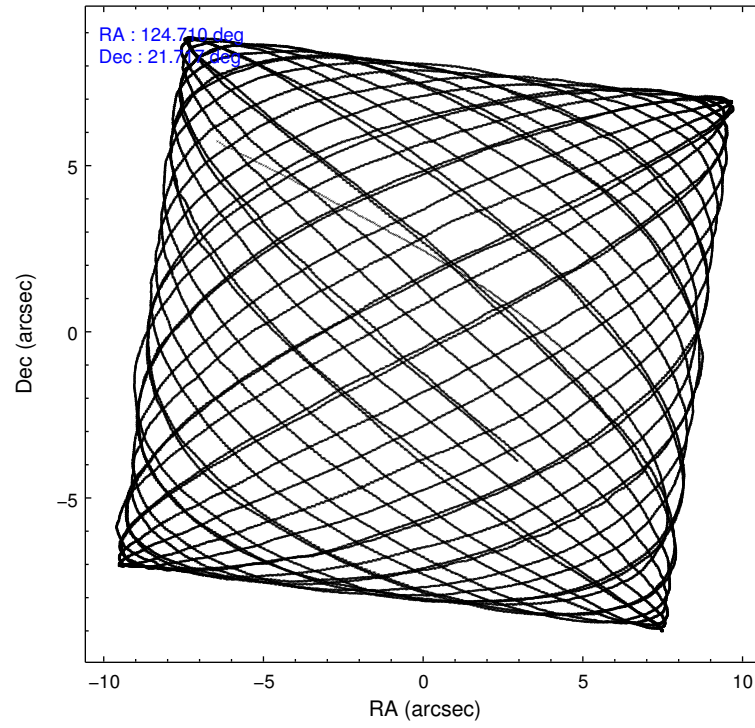
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	155933	155839	177218	167353	169855
rejected events	140121	137849	161424	152268	153597
rejected %	89%	88%	91%	90%	90%

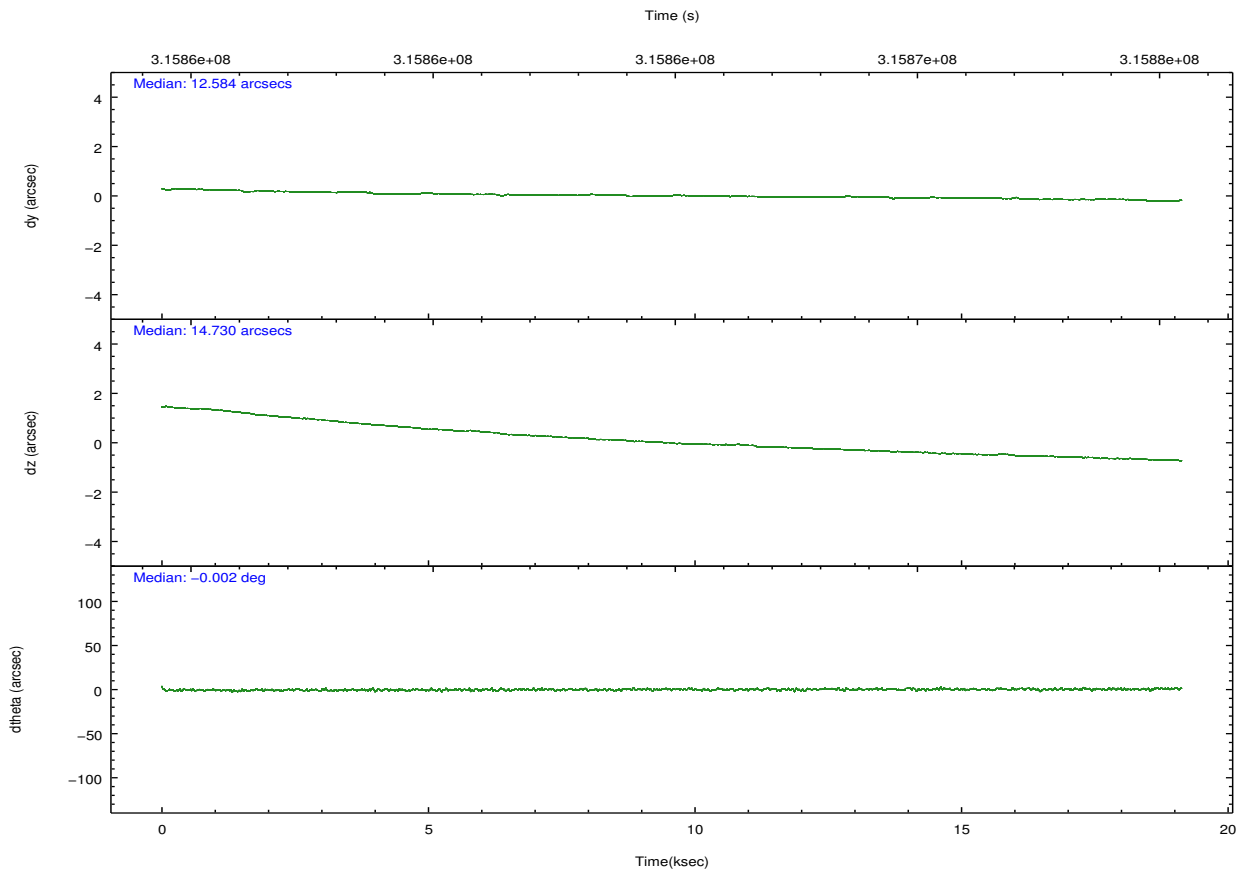
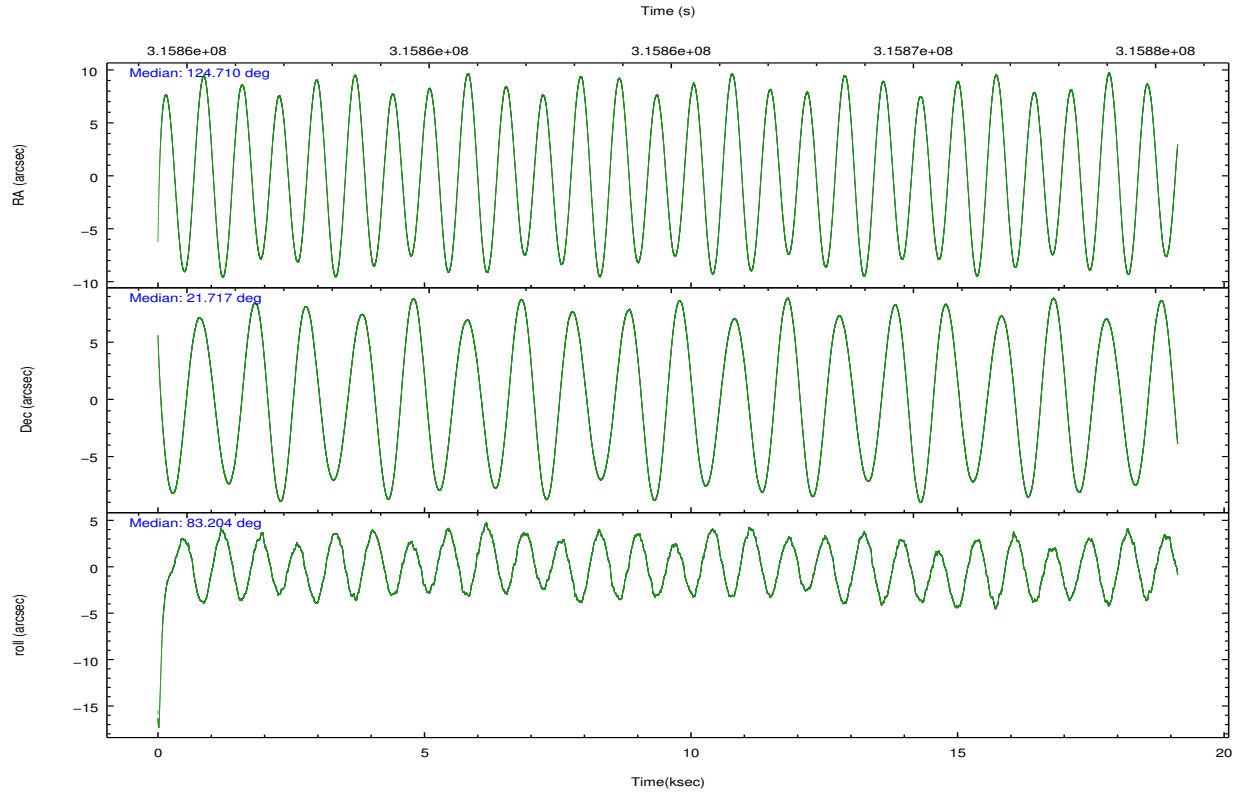
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	5588	6688	5864	5401	5790
	3%	4%	3%	3%	3%
grade 1 events	77	98	97	89	73
	0%	0%	0%	0%	0%
grade 2 events	3938	4059	3964	3423	3735
	2%	2%	2%	2%	2%
grade 3 events	1873	1971	1761	1760	1838
	1%	1%	0%	1%	1%
grade 4 events	1716	2045	1747	1854	1825
	1%	1%	0%	1%	1%
grade 5 events	5832	6386	5675	6809	6570
	3%	4%	3%	4%	3%
grade 6 events	3243	3832	3050	3191	3660
	2%	2%	1%	1%	2%
grade 7 events	133666	130760	155060	144826	146364
	85%	83%	87%	86%	86%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	124.721853	124.7100733044186	CCD I2 on	Y	Y
[deg] Pointing Dec	21.691360	21.71658690818472	CCD I3 on	Y	Y
[deg] Pointing Roll	82.996232	83.20927120358843	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	N	N
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	315855488.184000	315854184.78094	CCD S5 on	N	N
Observation start date	2008-01-04T17:37:03	2008-01-04T17:16:24	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	315874488.184000	315875236.74446	On-chip summing requested	N	N
Observation end date	2008-01-04T22:53:43	2008-01-04T23:07:16	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



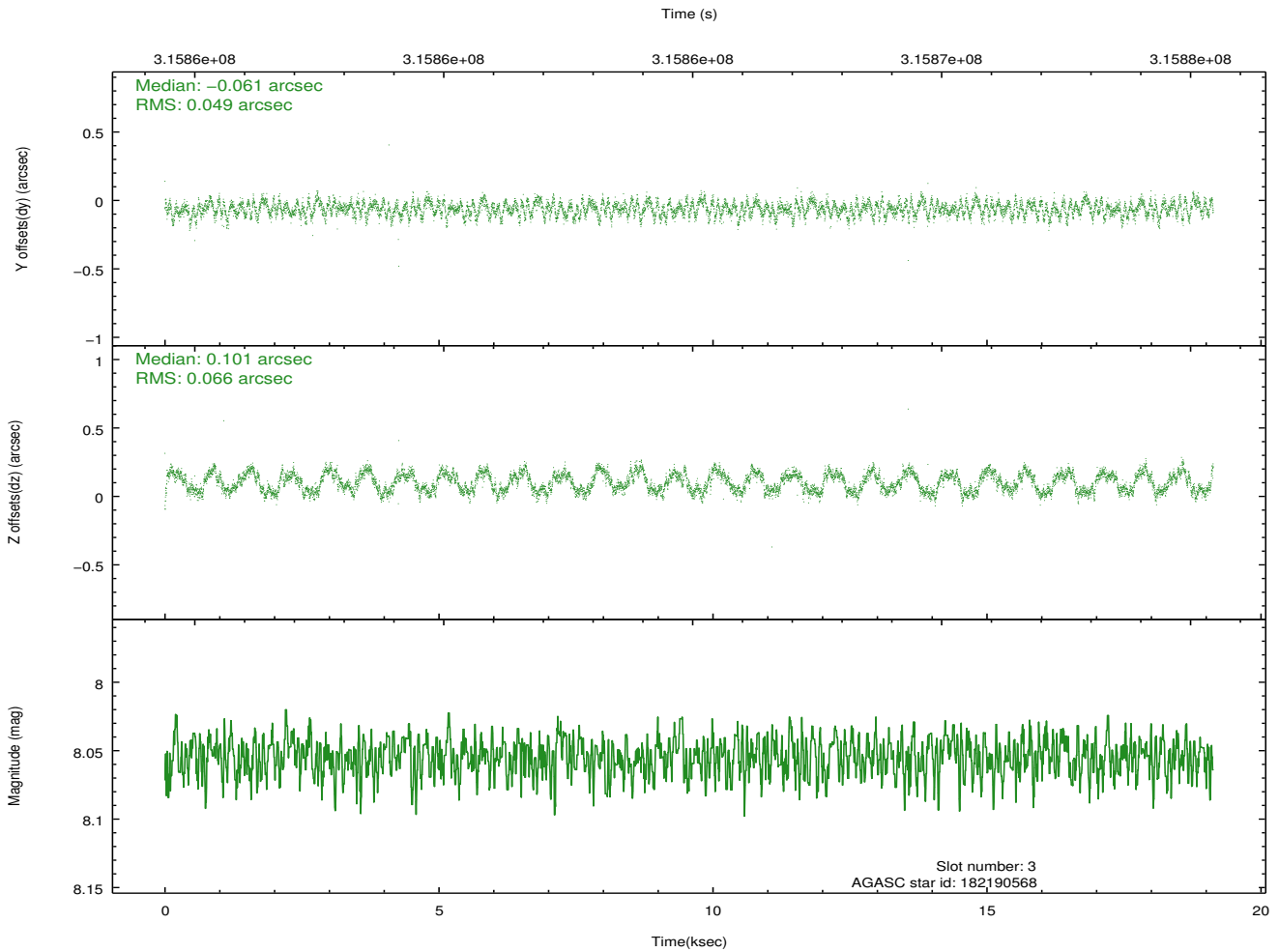
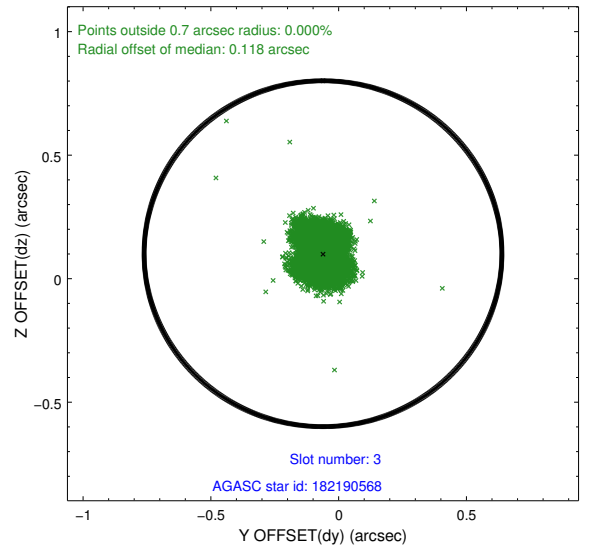
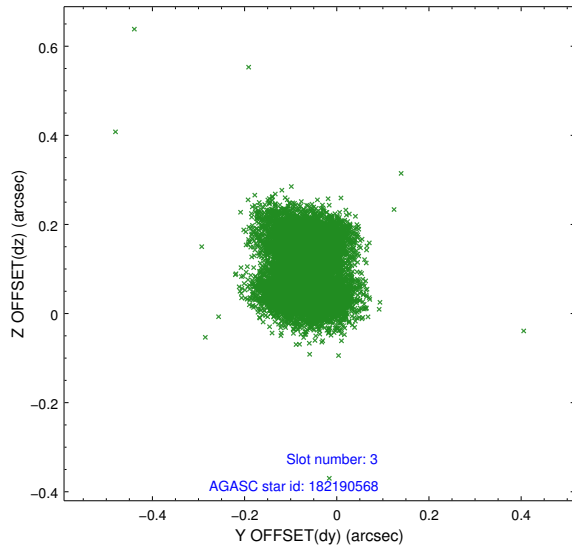


### Slot Statistics

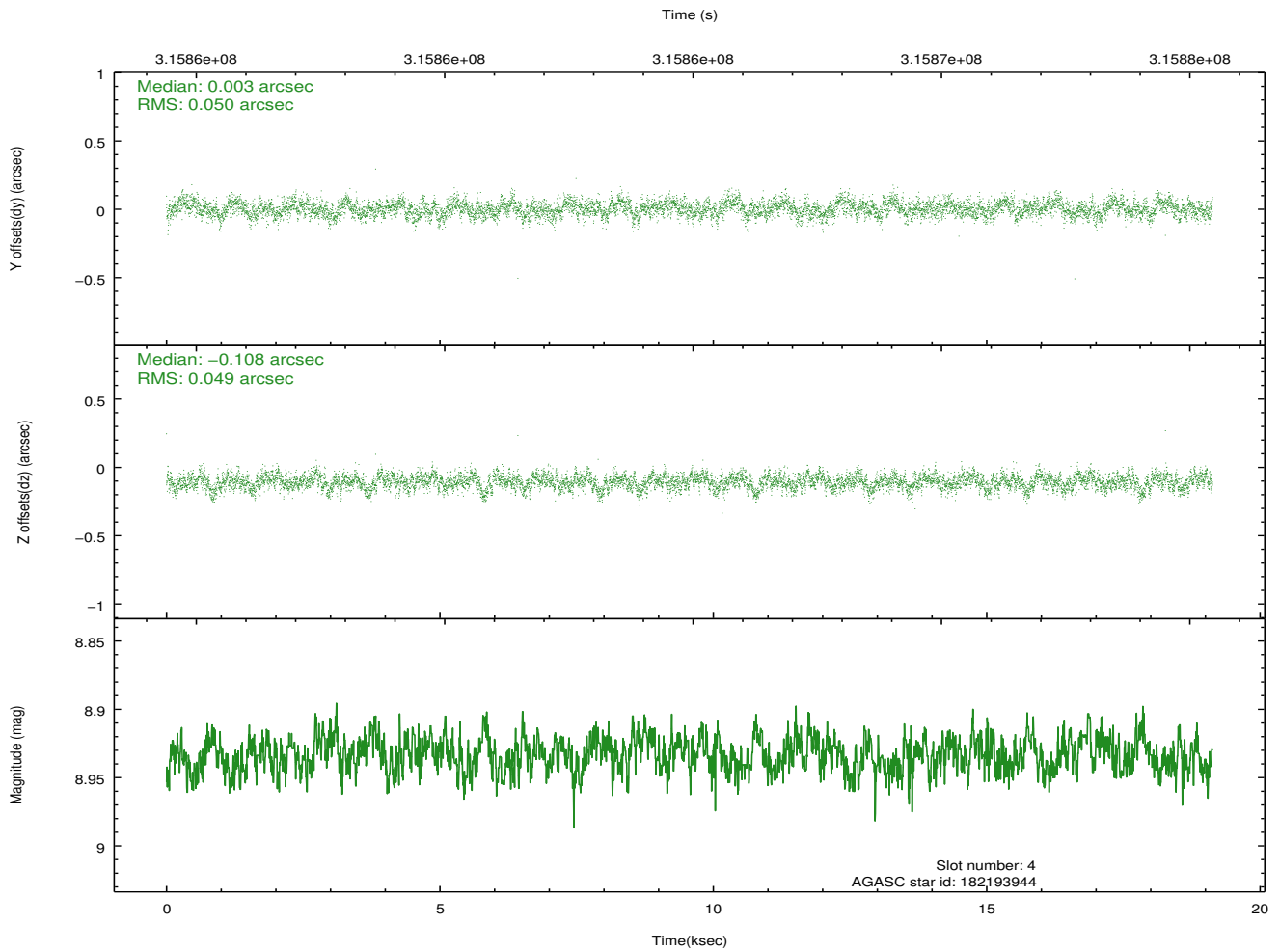
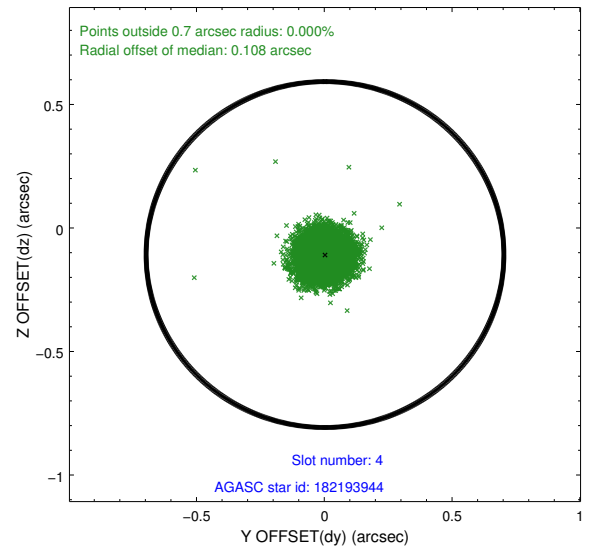
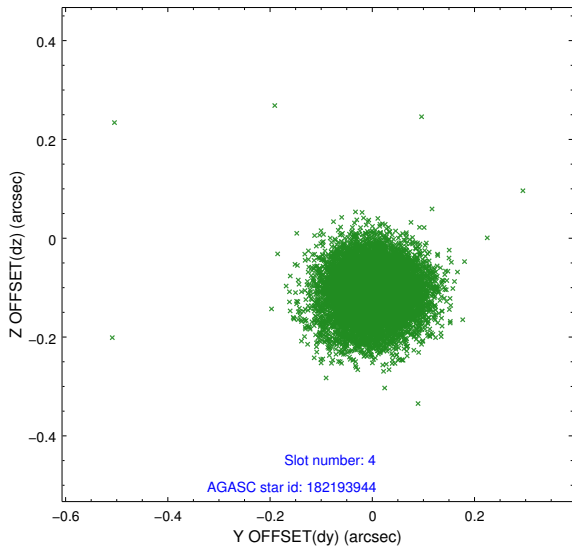
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-I-2	7.14	4665	-0.156	-0.097	0.011	0.019	0.000000	0.000000	-767.41	-844.92
1	FID		ACIS-I-4	7.16	4666	0.107	0.071	0.010	0.020	0.000000	0.000000	2146.84	1061.29
2	FID		ACIS-I-6	7.23	4665	-0.050	0.089	0.015	0.023	0.000000	0.000000	393.06	1703.74
3	GUIDE	used	182190568	8.05	9329	-0.061	0.101	0.090	0.130	125.270475	22.031708	1442.75	-1667.02
4	GUIDE	used	182193944	8.93	9328	0.003	-0.108	0.074	0.120	124.609095	22.220430	1844.92	605.45
5	GUIDE	used	182202936	7.82	9329	0.017	0.054	0.061	0.097	124.849962	21.257255	-1498.23	-617.28
6	GUIDE	used	182203576	7.54	9333	0.000	-0.171	0.054	0.088	124.189461	21.231017	-1859.94	1571.41
7	GUIDE	used	182201632	7.64	9330	0.037	0.123	0.057	0.090	124.727284	21.494130	-702.57	-104.28

## 2.4 Star Slots

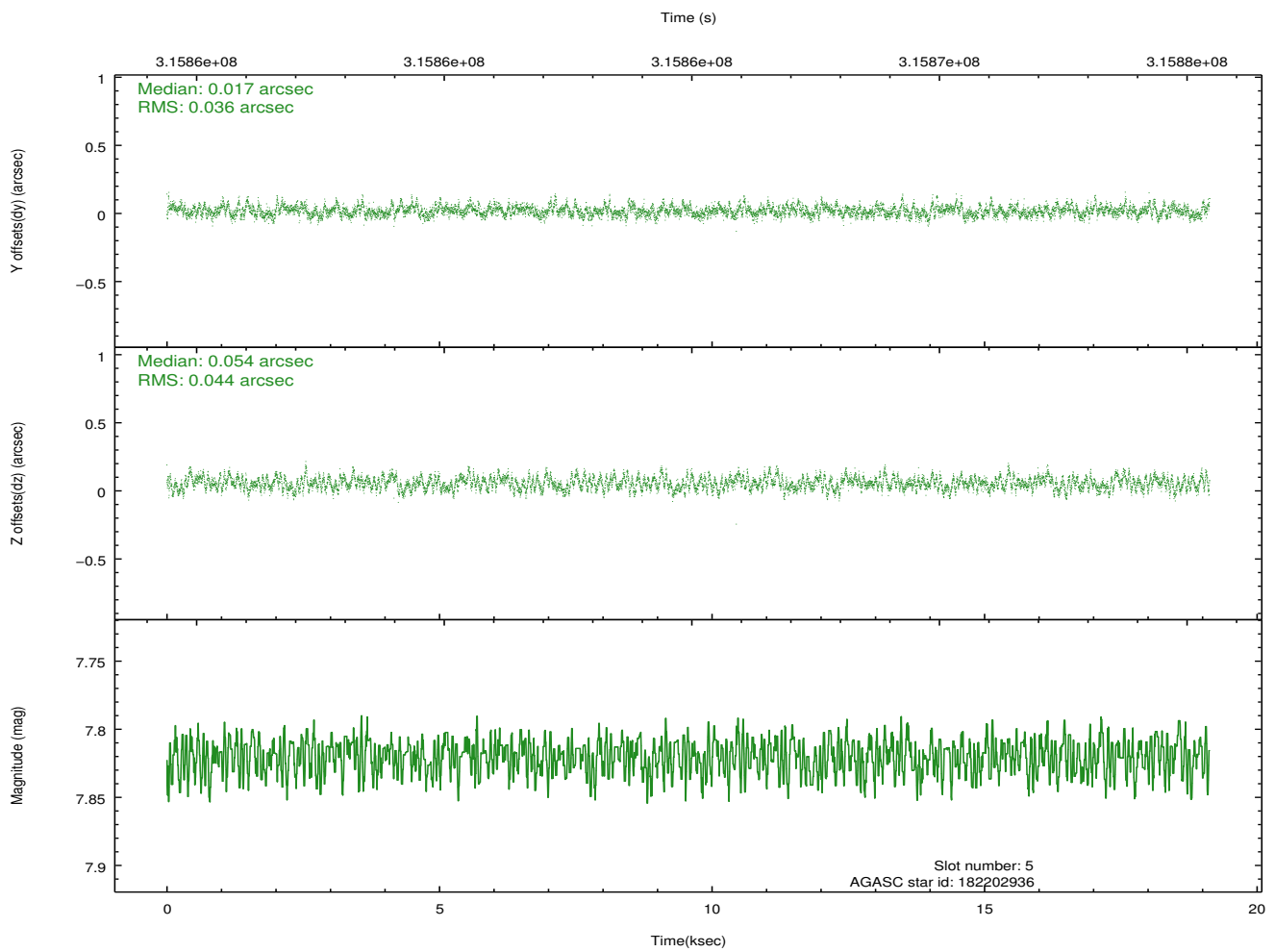
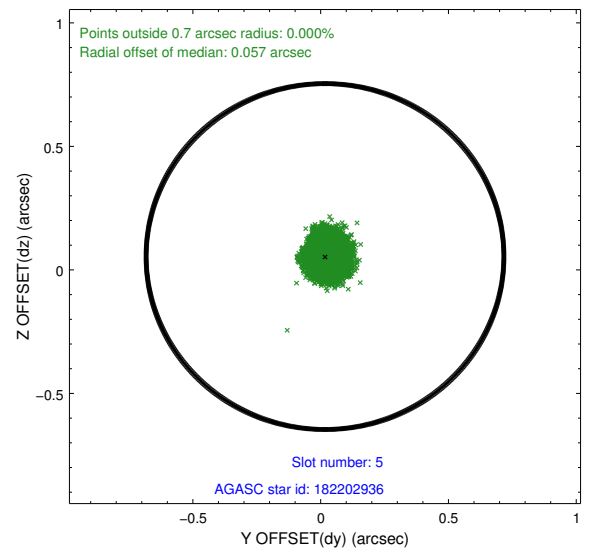
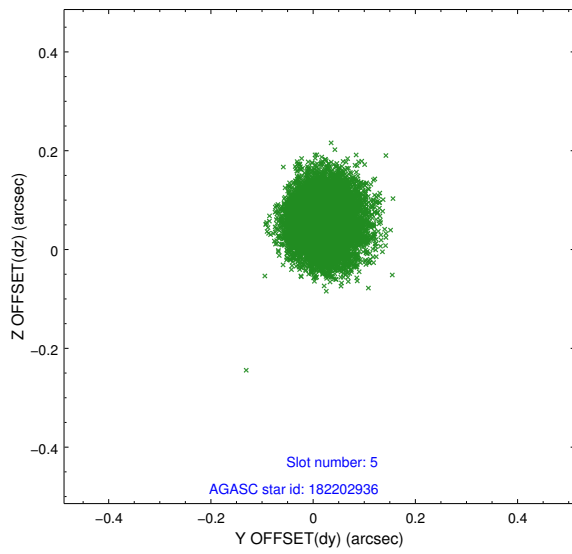
### 2.4.1 Slot 3



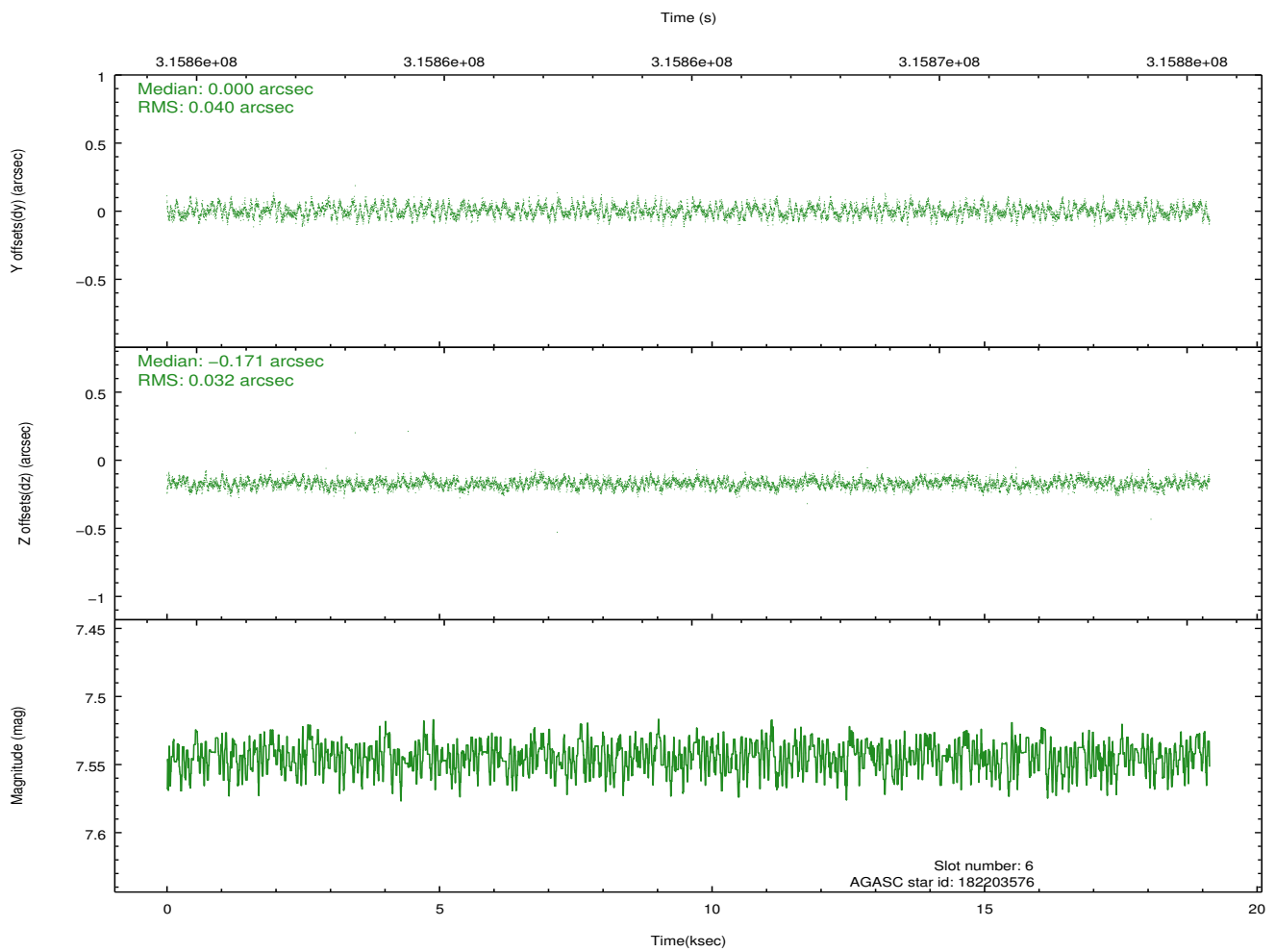
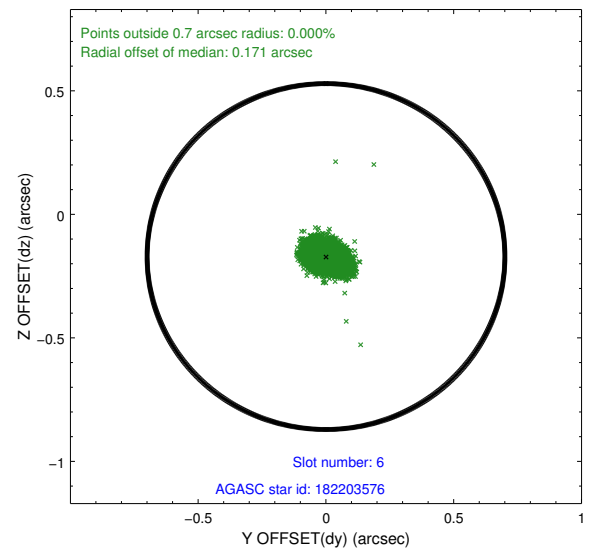
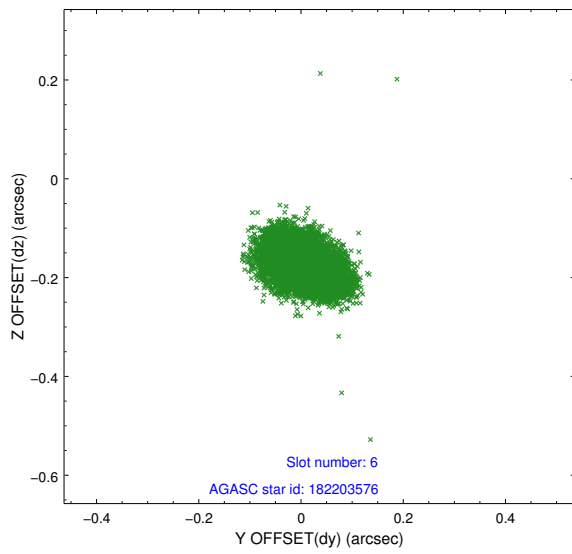
### 2.4.2 Slot 4



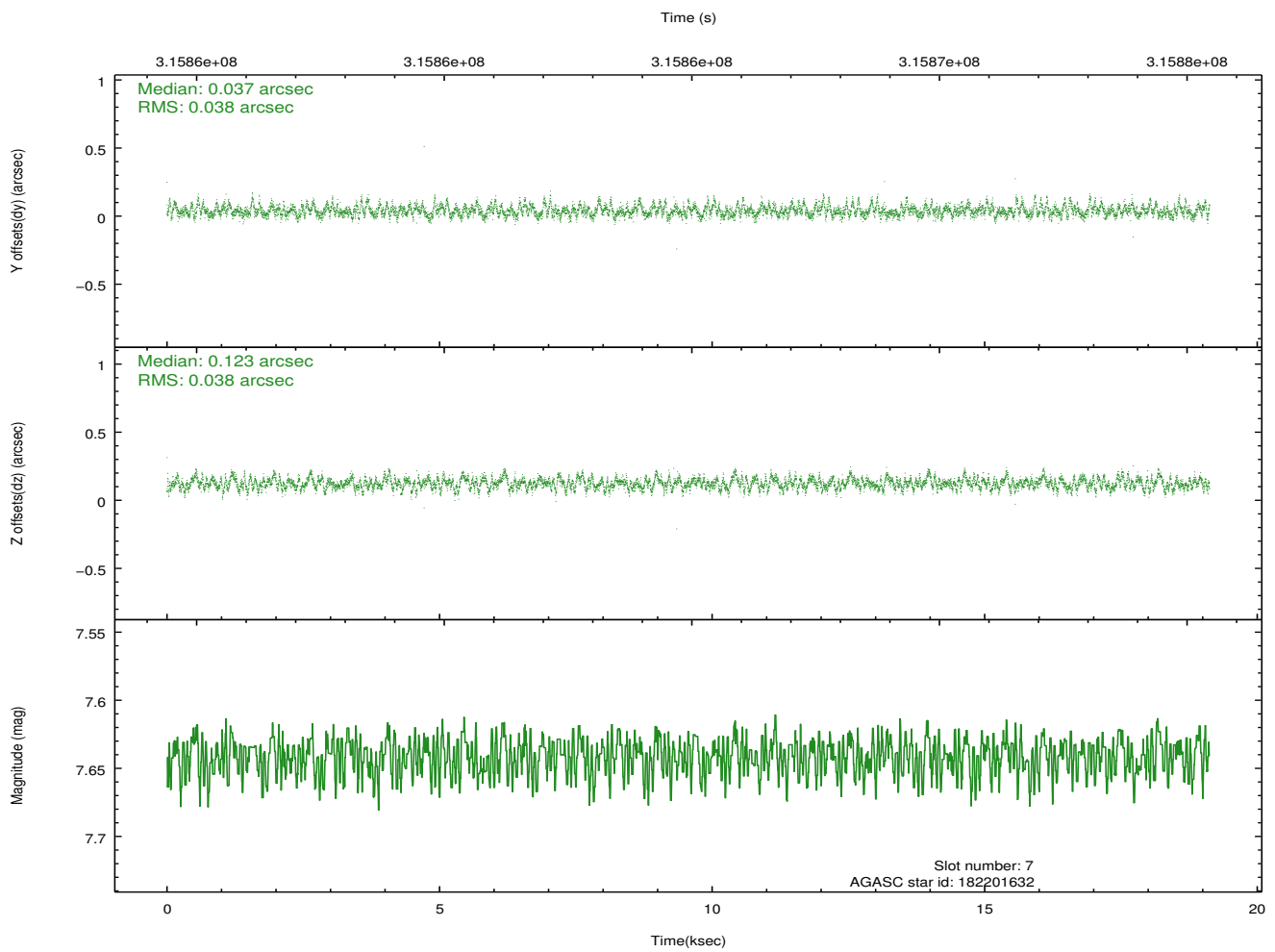
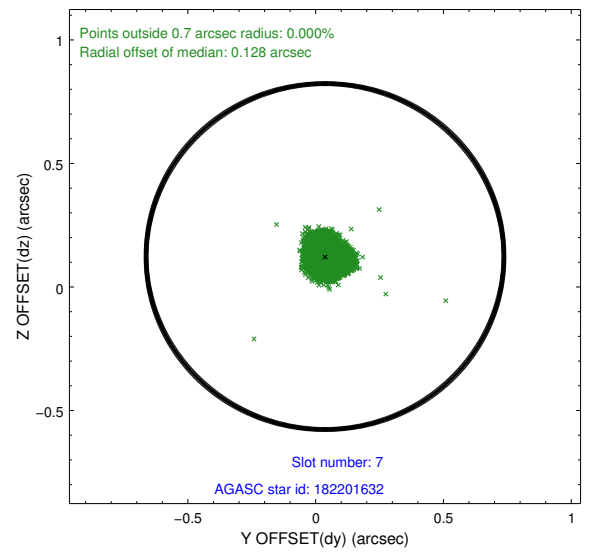
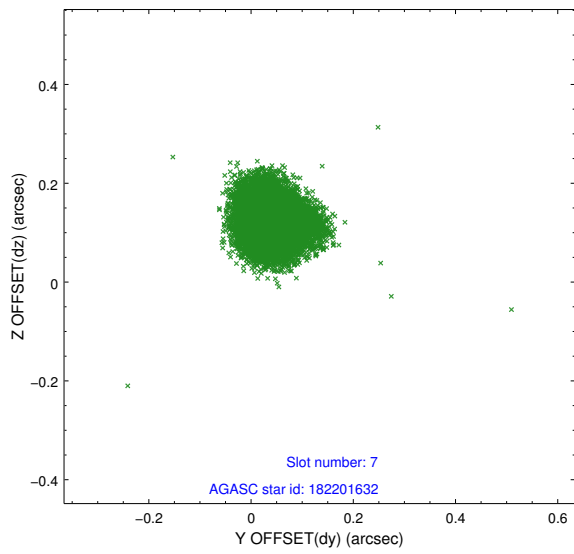
### 2.4.3 Slot 5



## 2.4.4 Slot 6

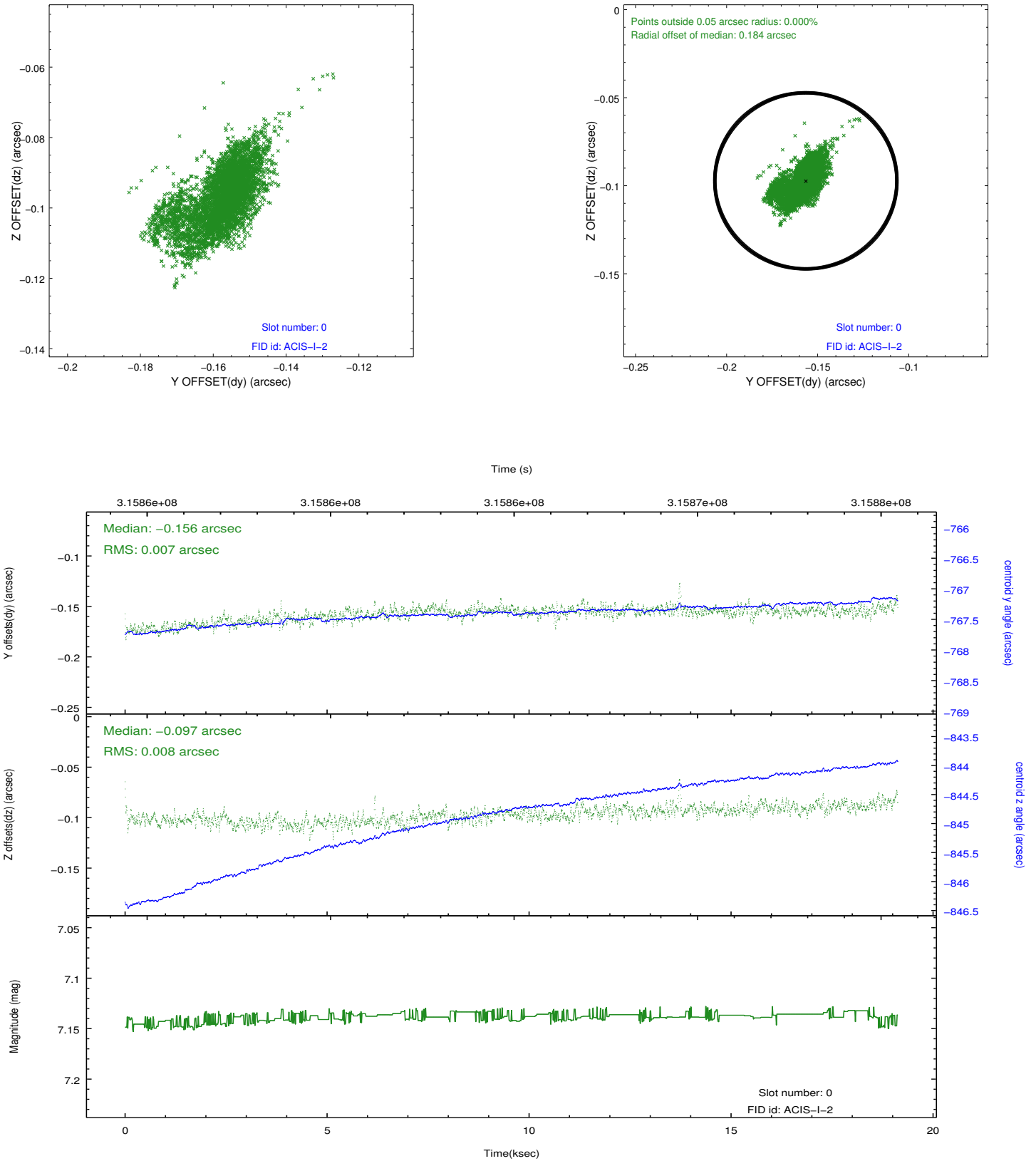


## 2.4.5 Slot 7

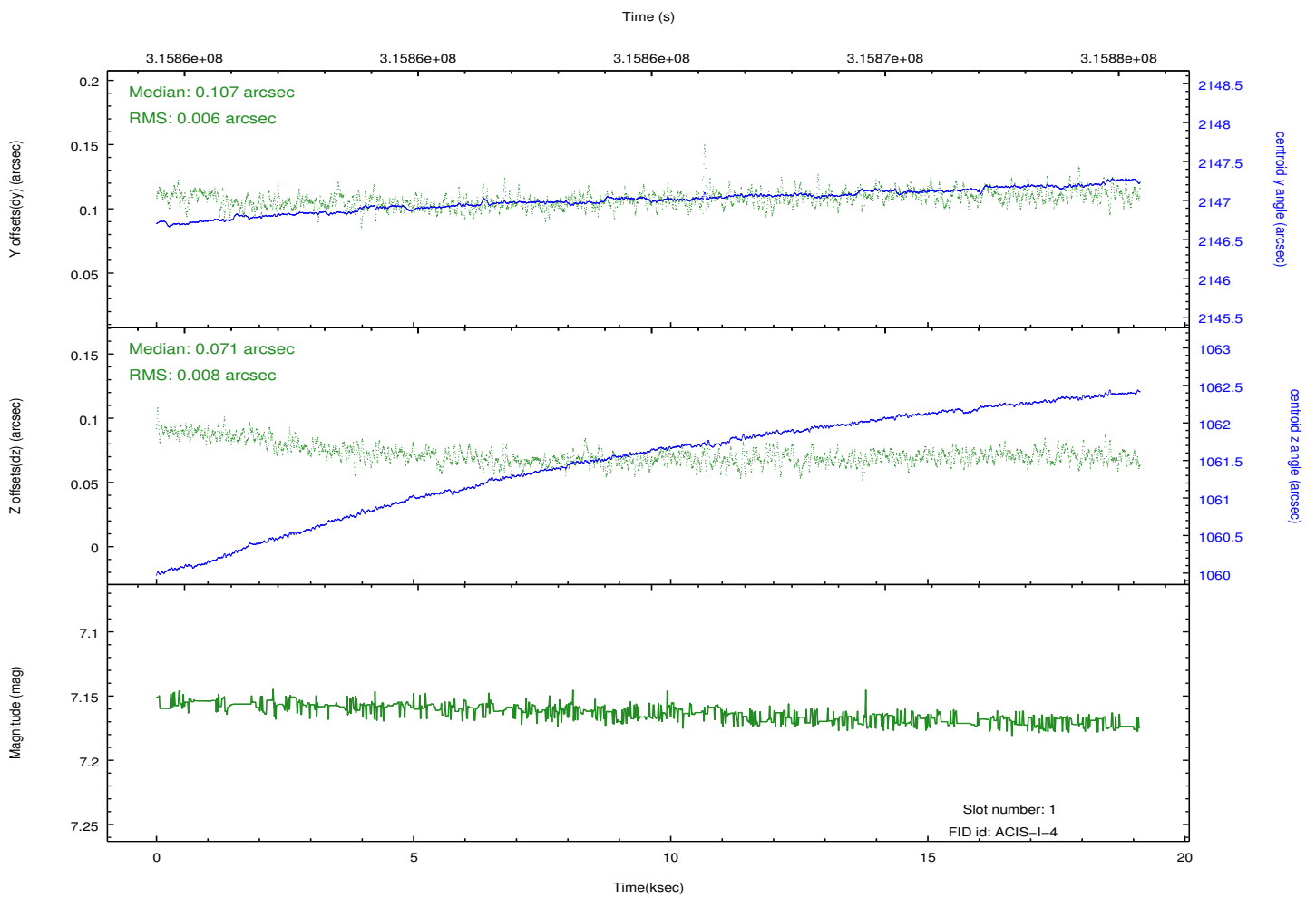
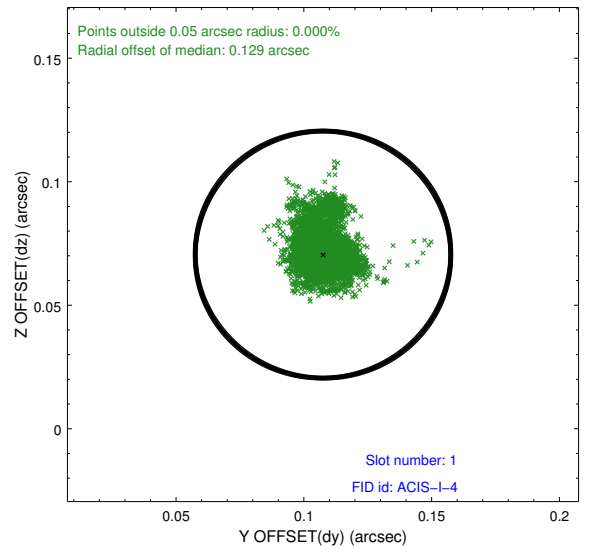
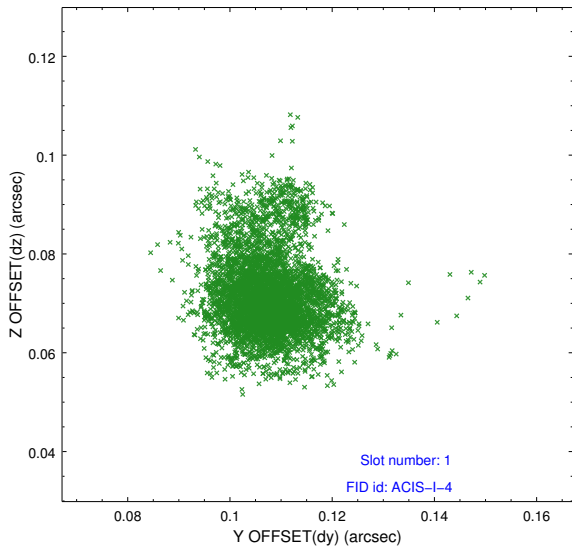


## 2.5 FID Slots

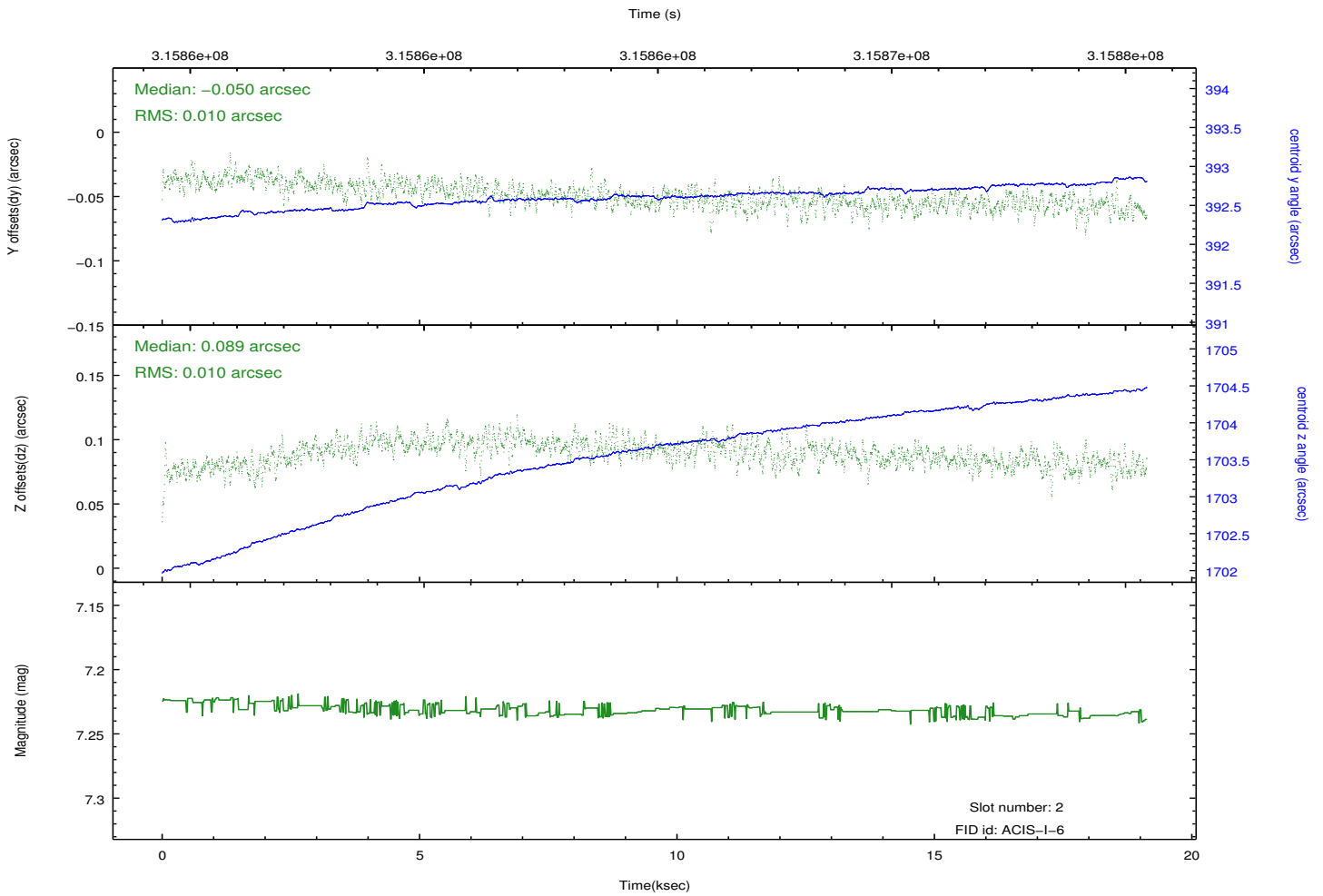
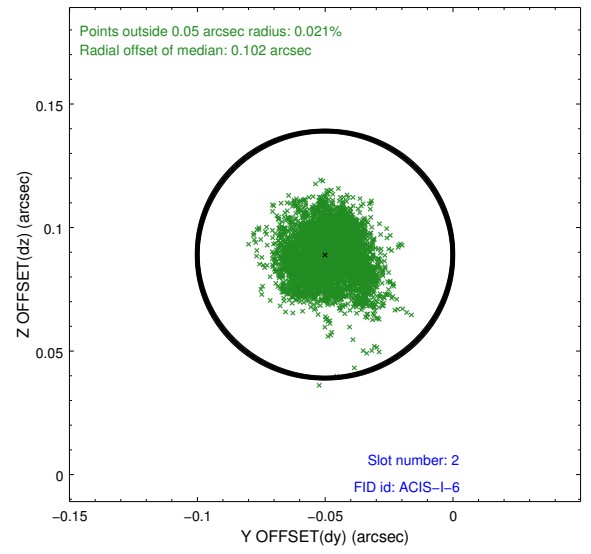
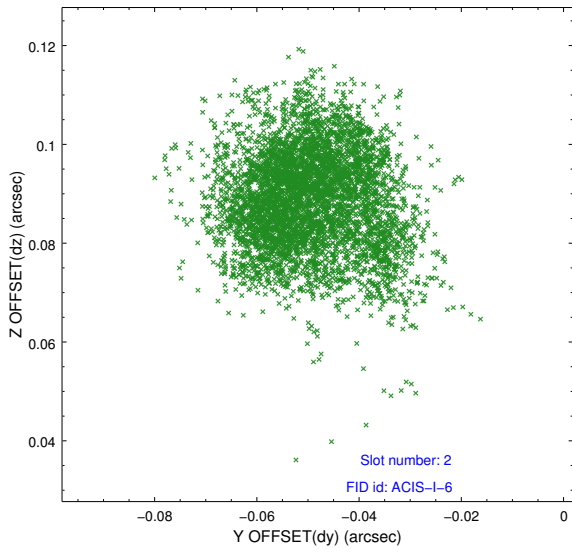
### 2.5.1 Slot 0



## 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)	2015.07.15
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.1270001

## A.2 Comments

Because an aspect solution is determined in a finite time interval, a small number of events registered within the delta time before the first aspect solution do not have proper sky coordinates. We apply a manual workaround to exclude those events with incorrect sky positions until the complete s/w resolution is obtained.