

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 11587 - L2 Version 3  
Chandra X-Ray Center

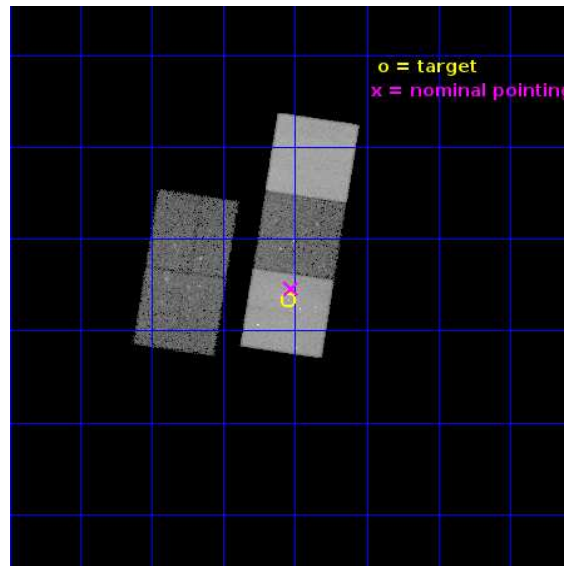
L2 Processing Date : Jul 22 2015

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# 1 Front

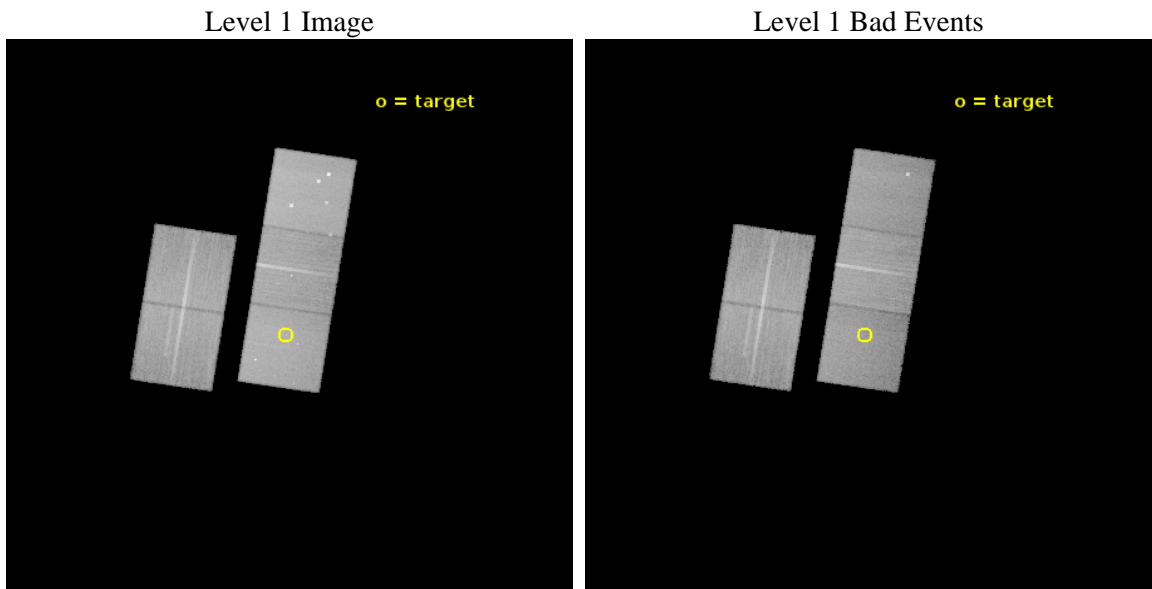
seq_num	702173	Sequence number
obs_id	11587	Observation id
title	Strong radio AGN in the center of galaxy groups	Proposal title
observer	Dr. Ming Sun	Principal investigator
object	A208	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	22.887083	Observer's specified target RA [deg]
dec_targ	0.556111	Observer's specified target Dec [deg]
ra_nom	22.881415615594	Nominal RA [deg]
dec_nom	0.57628507044244	Nominal Dec [deg]
roll_nom	98.812610214333	Nominal Roll [deg]
revision	3	Processing version of data
ontime	24139.093895733	Sum of GTIs [s]
livetime	23823.698863043	Livetime [s]
ontime2	24132.812024474	Sum of GTIs [s]
ontime3	24139.093895733	Sum of GTIs [s]
ontime5	24139.093895733	Sum of GTIs [s]
ontime6	24132.811895132	Sum of GTIs [s]
ontime7	24139.093895733	Sum of GTIs [s]
l2events	309004	Number of level 2 events



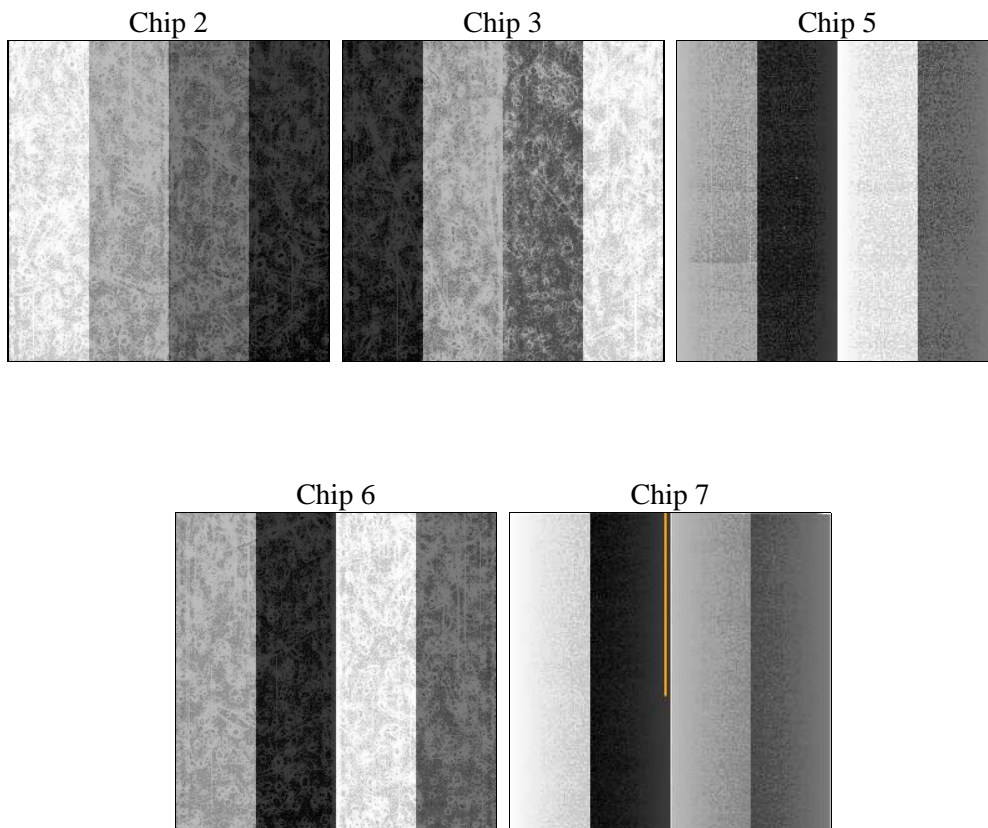
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	24000.000000	[s] Scheduled observation exposure time
ascdsver	10.4.1	Processing system revision	ontime	24139.093895733	Sum of GTIs [s]
caldbver	4.6.8	&#160	ontime2	24132.812024474	Sum of GTIs [s]
date	2015-07-22T17:02:57	Date and time of file creation	ontime3	24139.093895733	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	24139.093895733	Sum of GTIs [s]
			ontime6	24132.811895132	Sum of GTIs [s]
			ontime7	24139.093895733	Sum of GTIs [s]
			l1events	1210126	Number of level 1 events

### 2.1.4 Events

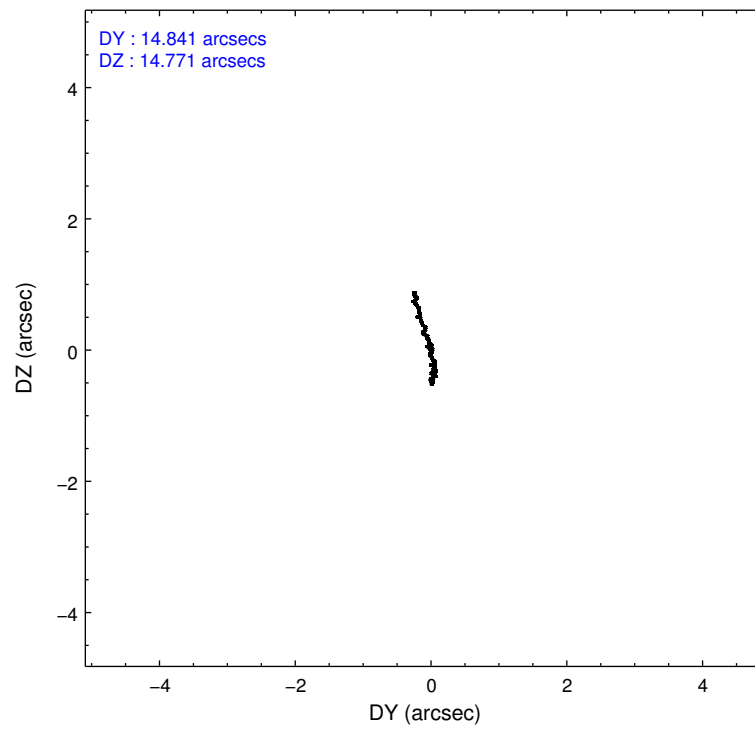
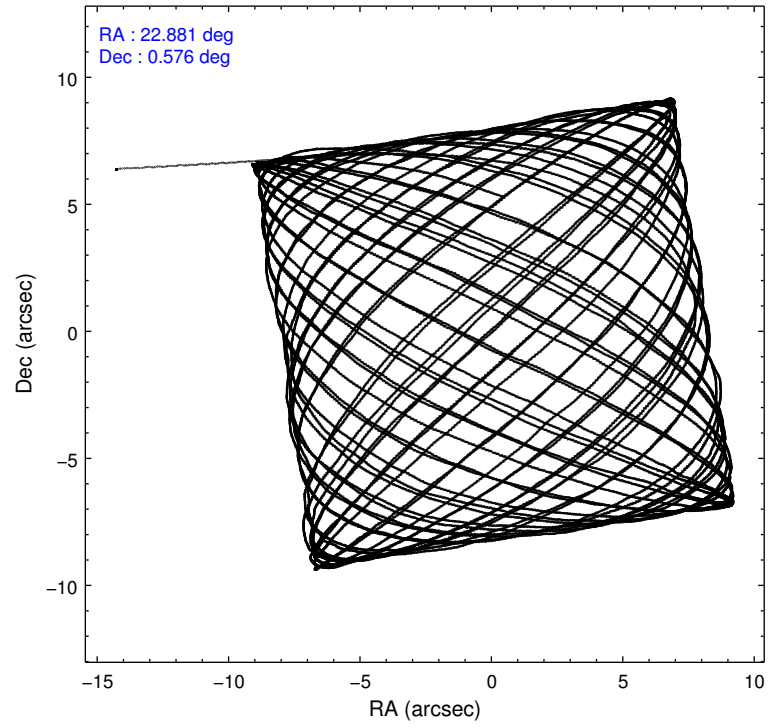
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	219671	207780	310994	218658	253023
rejected events	198575	187596	156207	194875	135736
rejected %	90%	90%	50%	89%	53%

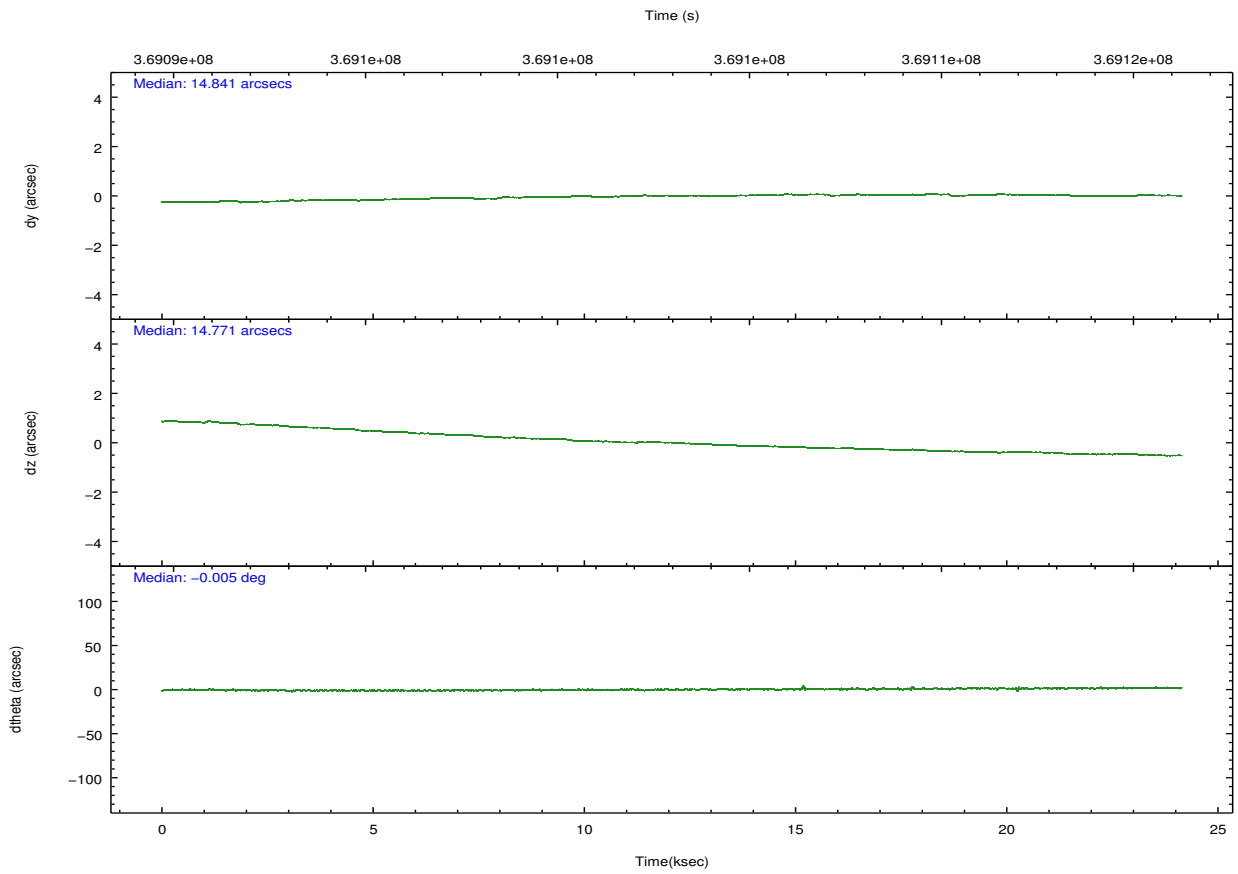
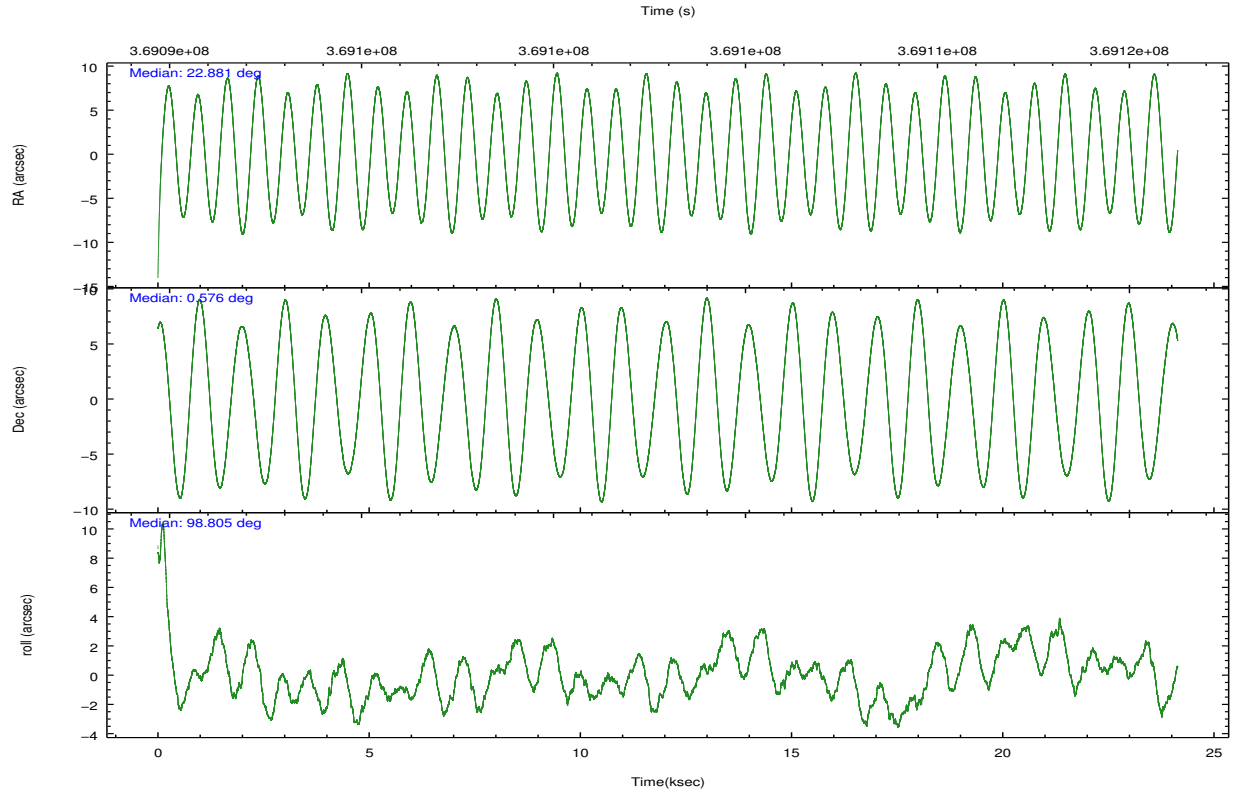
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	7841	7222	19258	9029	13015
	3%	3%	6%	4%	5%
grade 1 events	132	114	572	120	369
	0%	0%	0%	0%	0%
grade 2 events	5157	4501	47178	5211	24852
	2%	2%	15%	2%	9%
grade 3 events	2160	2267	6122	2433	10862
	0%	1%	1%	1%	4%
grade 4 events	2242	2300	5800	2453	10859
	1%	1%	1%	1%	4%
grade 5 events	7141	8787	23959	8816	25556
	3%	4%	7%	4%	10%
grade 6 events	3964	4146	78349	4934	59079
	1%	1%	25%	2%	23%
grade 7 events	191034	178443	129756	185662	108431
	86%	85%	41%	84%	42%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23567	ACIS-23567	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	22.898852	22.88141561559359	CCD I2 on	O1	Y
[deg] Pointing Dec	0.555205	0.576285070442442	CCD I3 on	Y	Y
[deg] Pointing Roll	98.655816	98.81261021433342	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	-190.1400660498719	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.00754346686406393	CCD S4 on	N	N
[s] Observation start time (MET)	369091054.184000	369089873.04046	CCD S5 on	N	N
Observation start date	2009-09-11T21:16:28	2009-09-11T20:57:53	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	369115054.184000	369115720.46675	On-chip summing requested	N	N
Observation end date	2009-09-12T03:56:28	2009-09-12T04:08:40	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





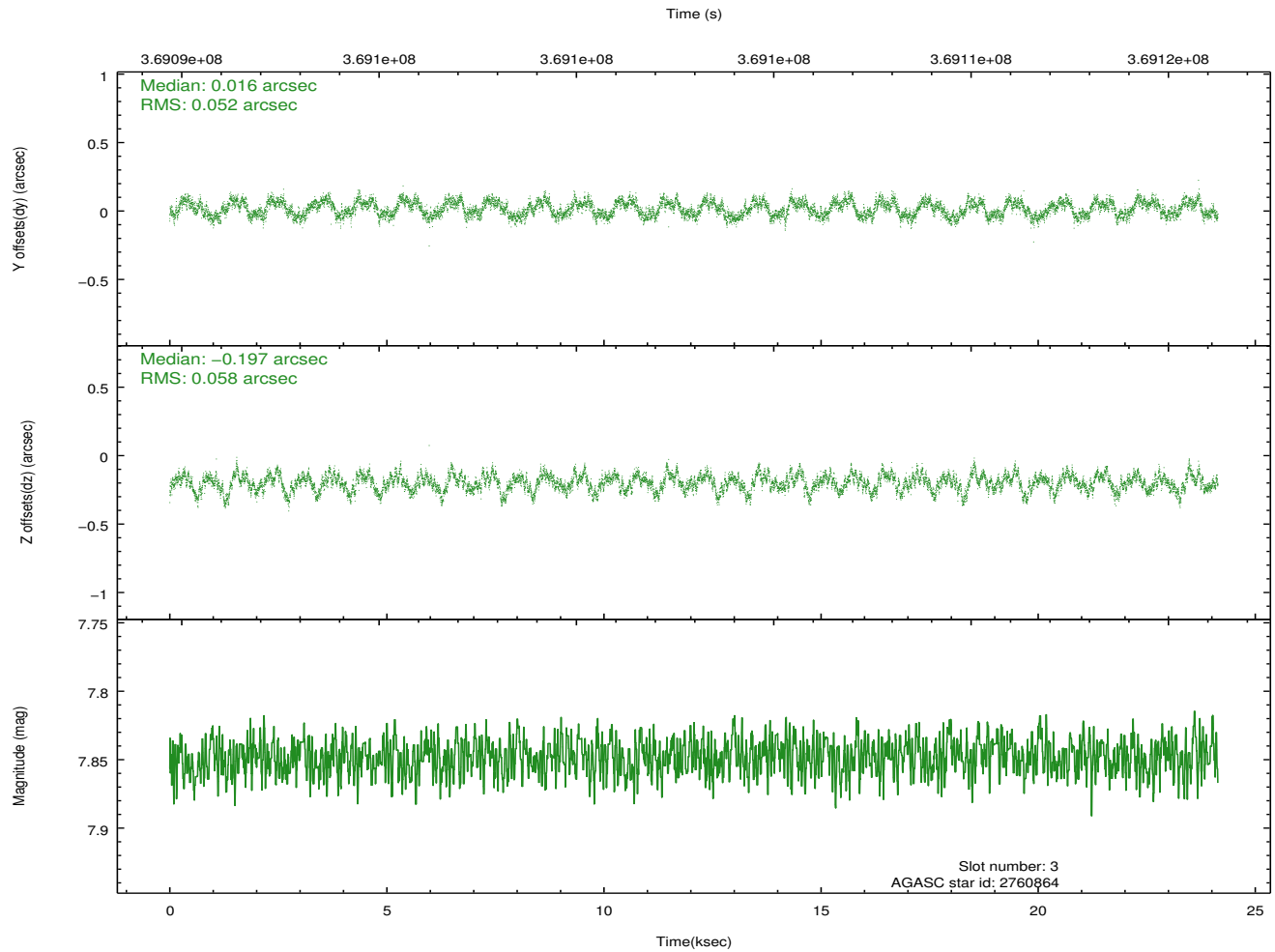
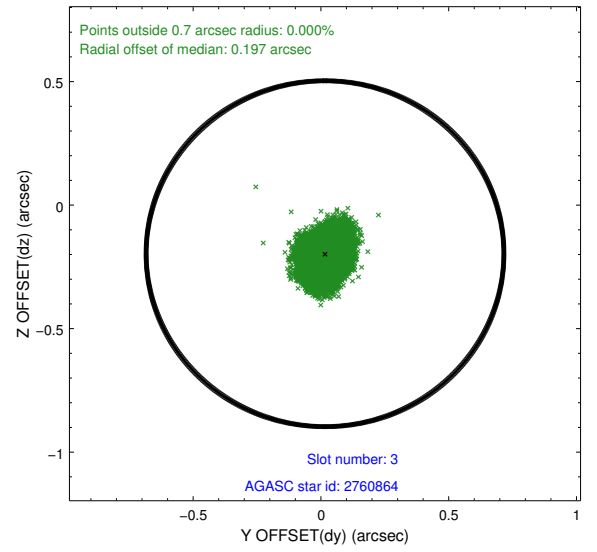
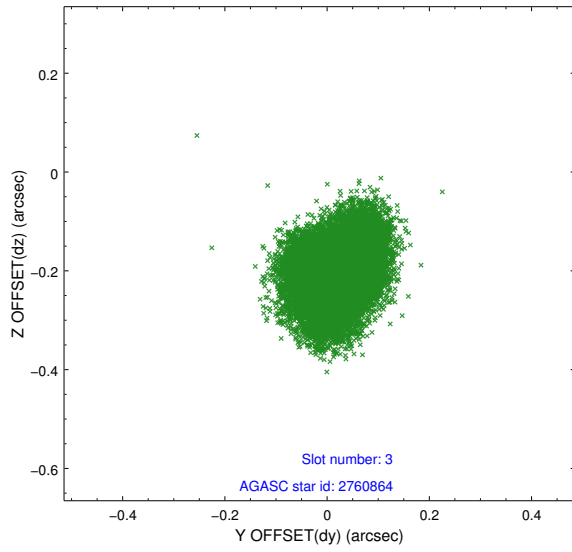
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-4	6.93	5888	0.146	0.002	0.008	0.012	0.000000	0.000000	2145.74	172.49
1	FID		ACIS-S-5	6.96	5888	-0.192	-0.004	0.008	0.014	0.000000	0.000000	-1820.63	165.92
2	FID		ACIS-S-6	7.07	5889	0.017	0.016	0.013	0.020	0.000000	0.000000	393.72	809.71
3	GUIDE	used	2760864	7.85	11773	0.016	-0.197	0.084	0.130	22.470753	0.374539	-410.90	1621.30
4	GUIDE	used	3671568	9.70	11757	0.014	0.170	0.199	0.325	23.029271	0.623395	171.62	-500.07
5	GUIDE	used	3673216	9.66	11728	-0.093	0.029	0.141	0.221	23.248095	1.021333	1470.40	-1495.67
6	GUIDE	used	3676176	8.57	11774	-0.005	0.127	0.069	0.112	23.337019	0.293171	-1169.66	-1417.79
7	GUIDE	used	3677056	8.93	11767	0.075	-0.080	0.108	0.170	23.390940	0.462877	-594.66	-1701.40

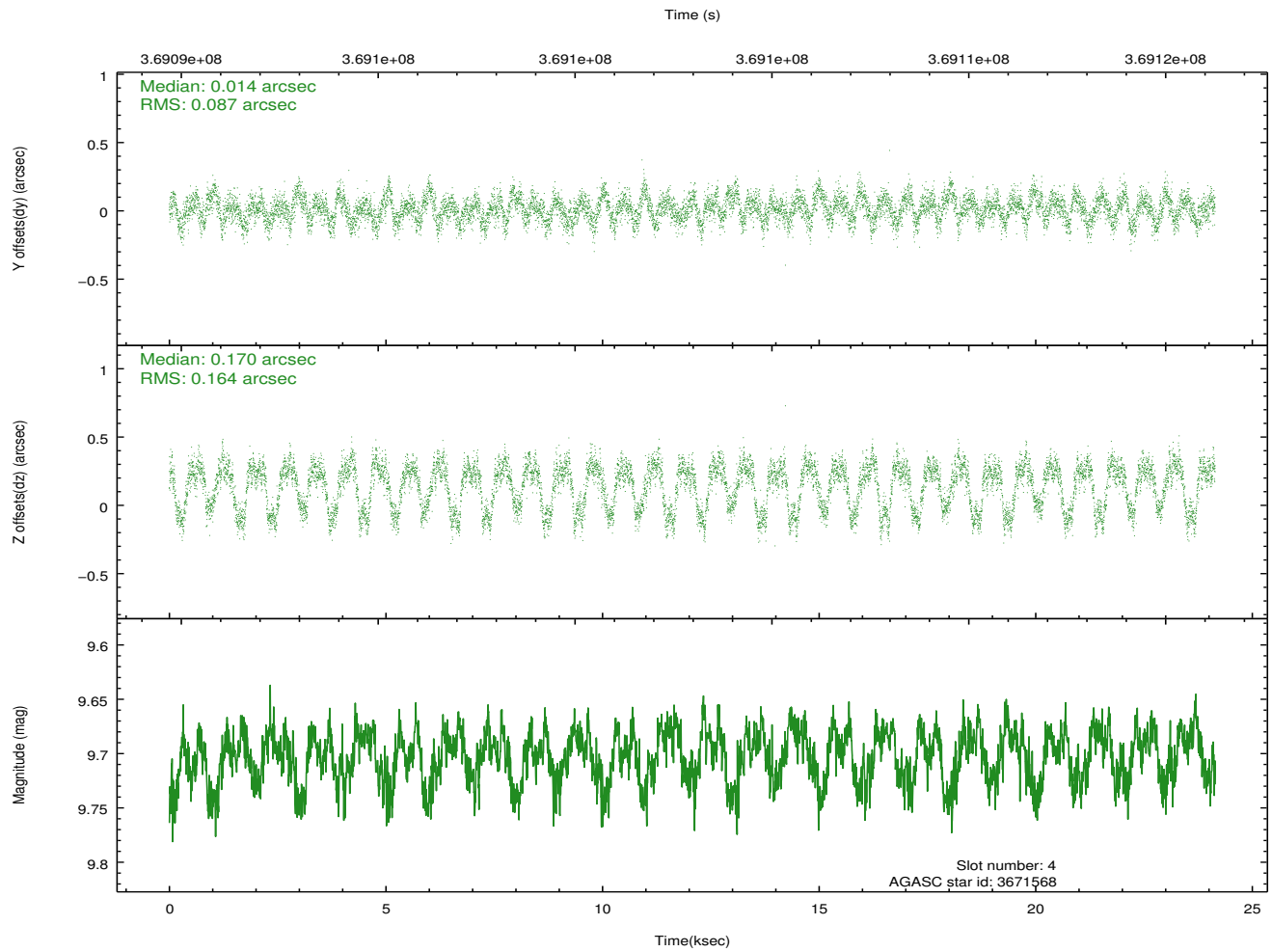
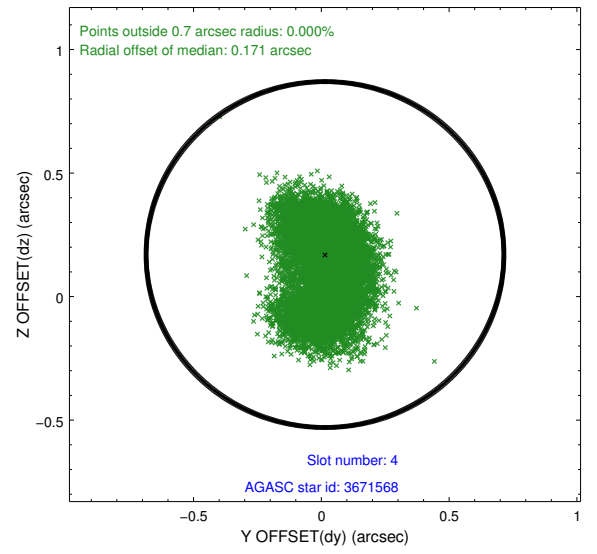
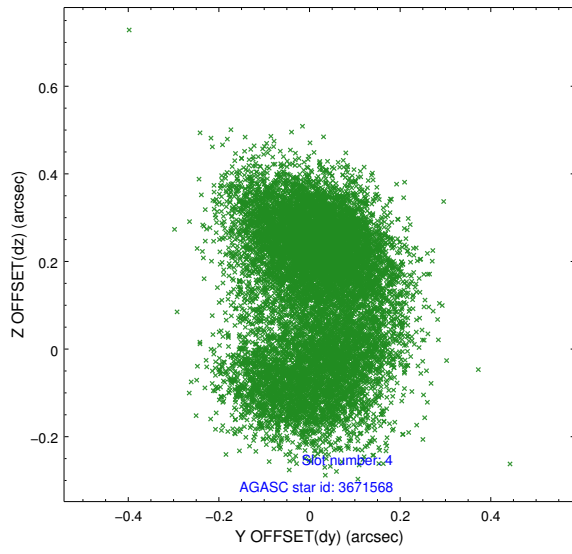
∞

## 2.4 Star Slots

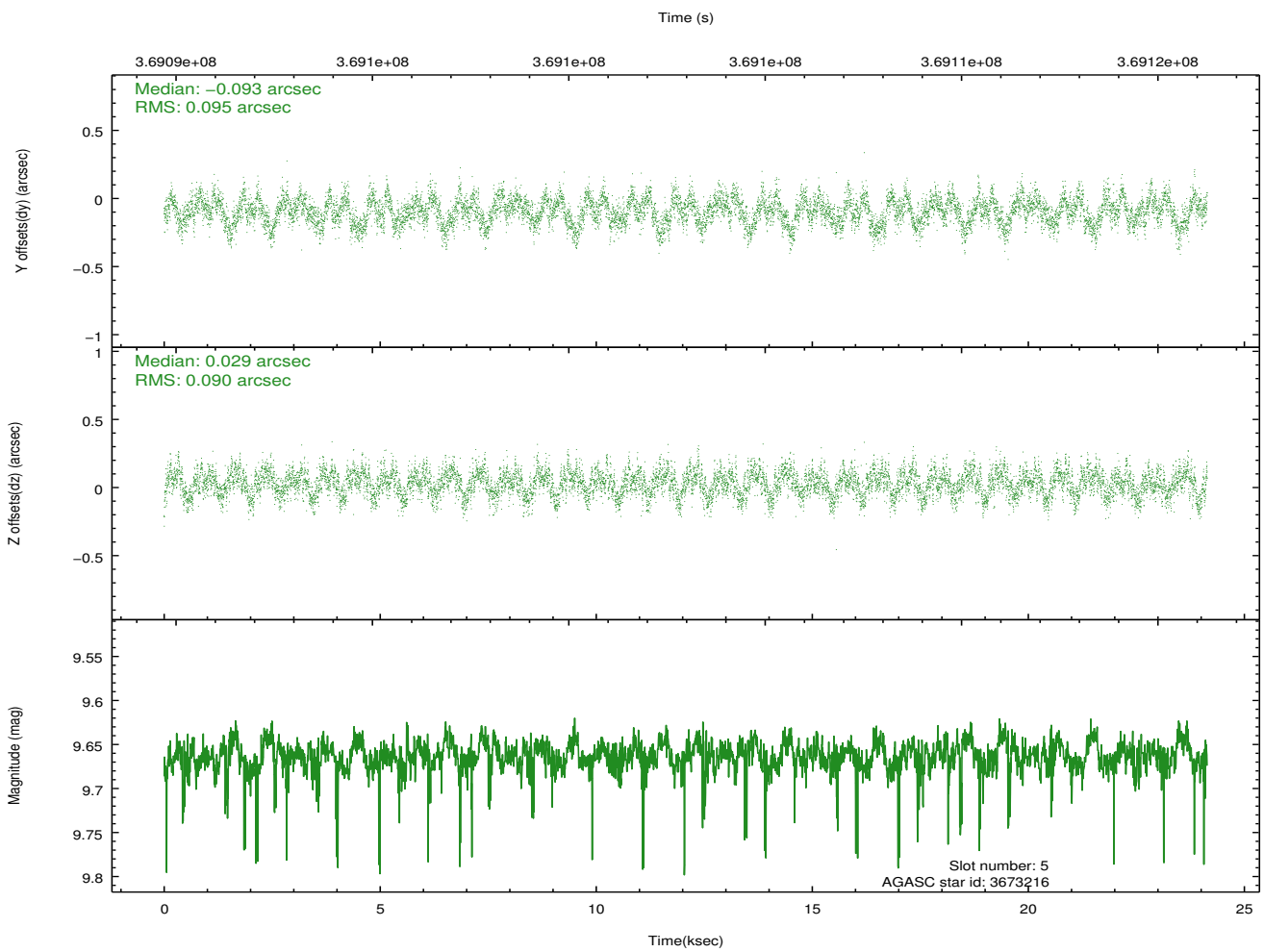
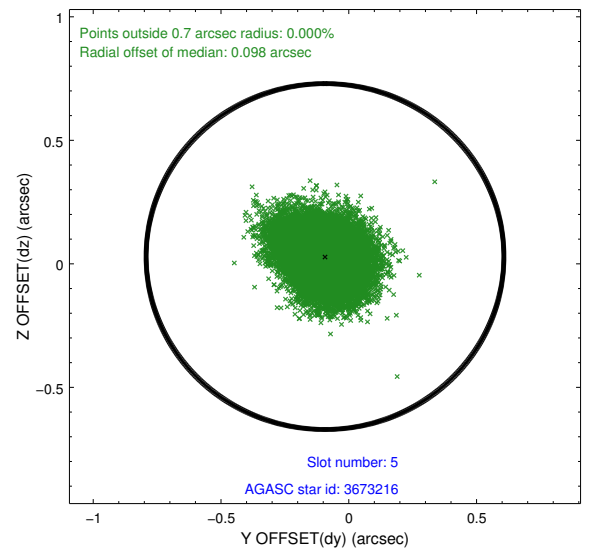
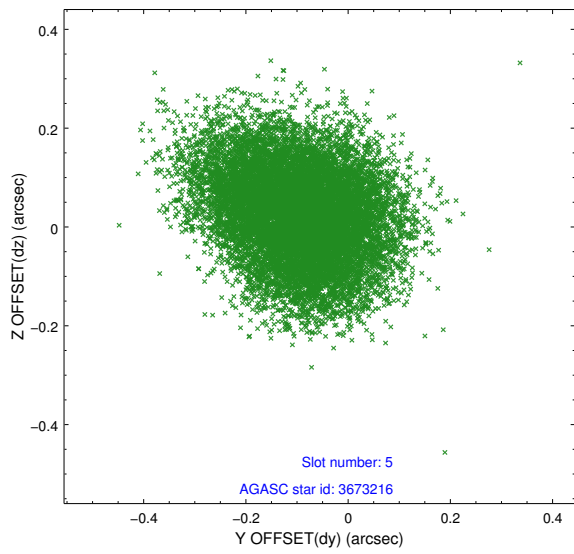
### 2.4.1 Slot 3



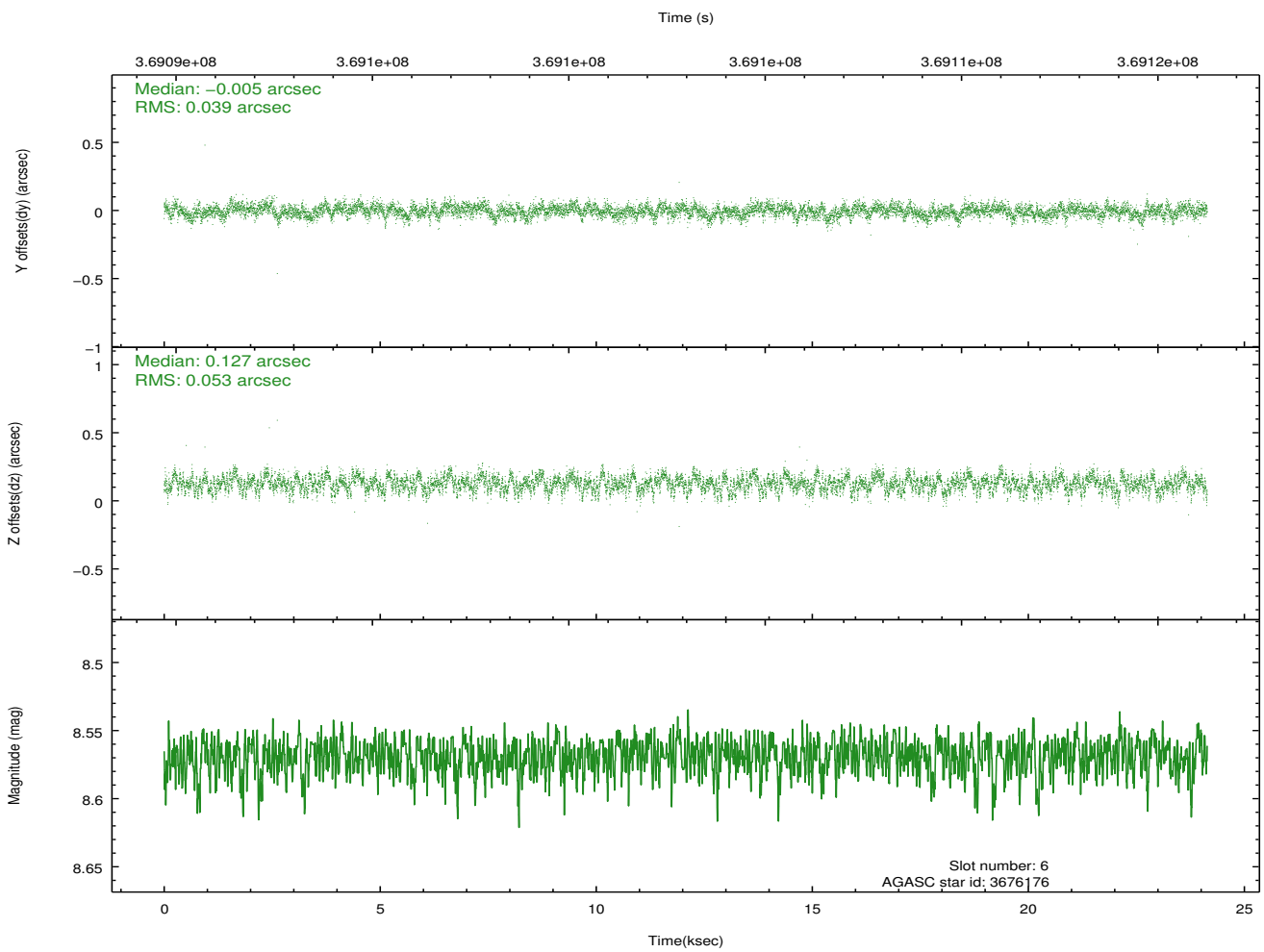
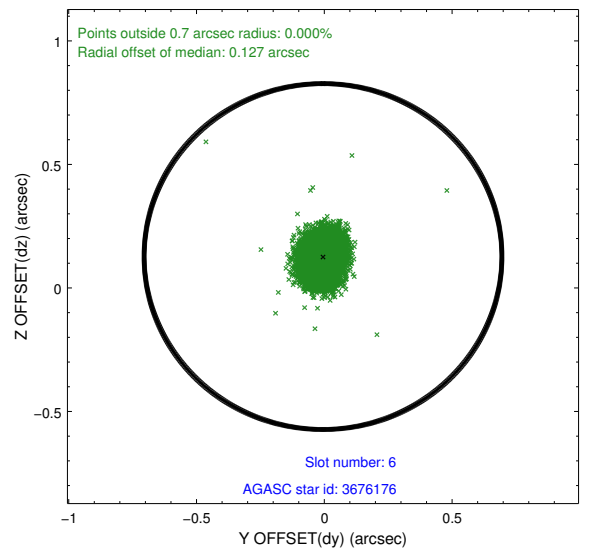
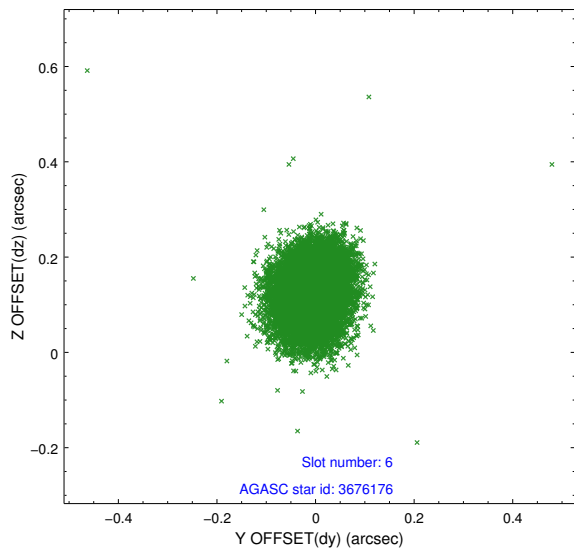
## 2.4.2 Slot 4



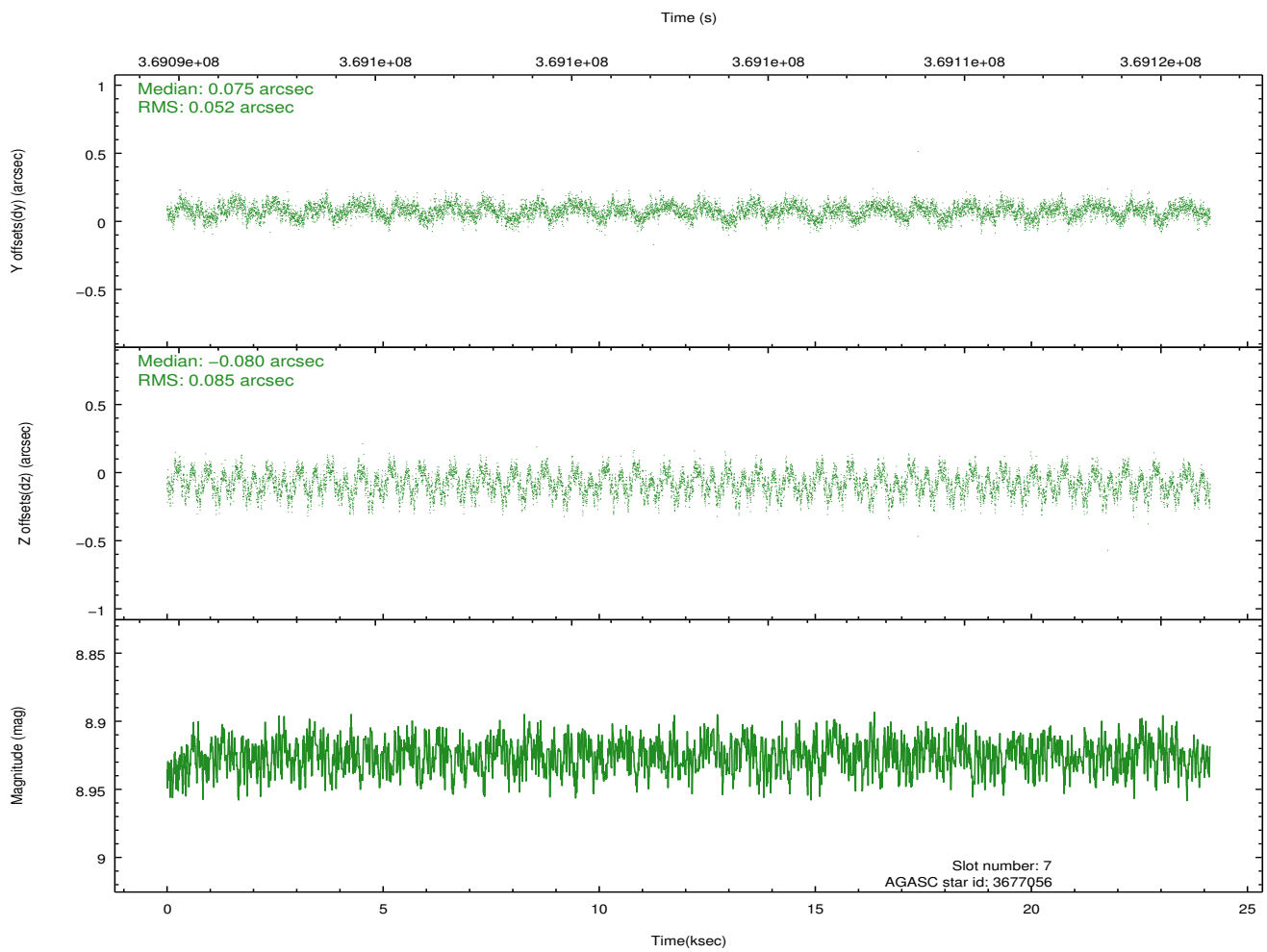
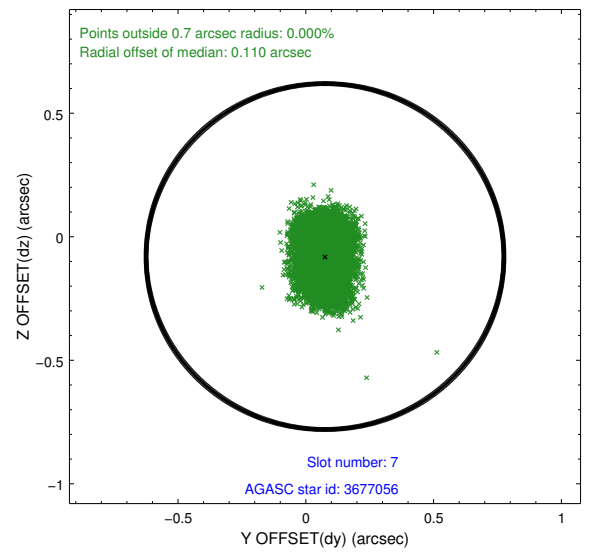
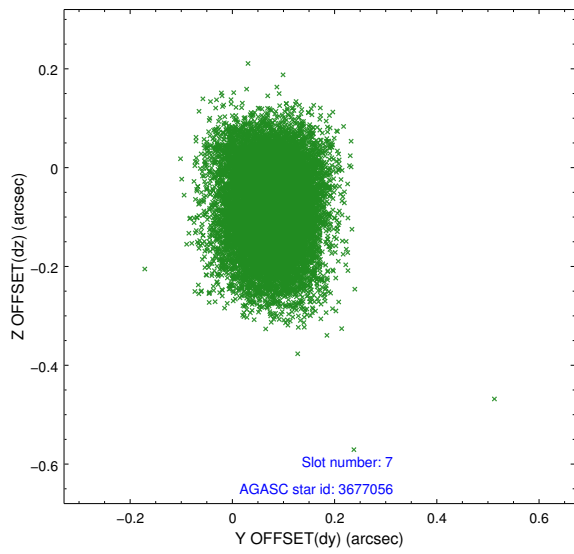
### 2.4.3 Slot 5



## 2.4.4 Slot 6

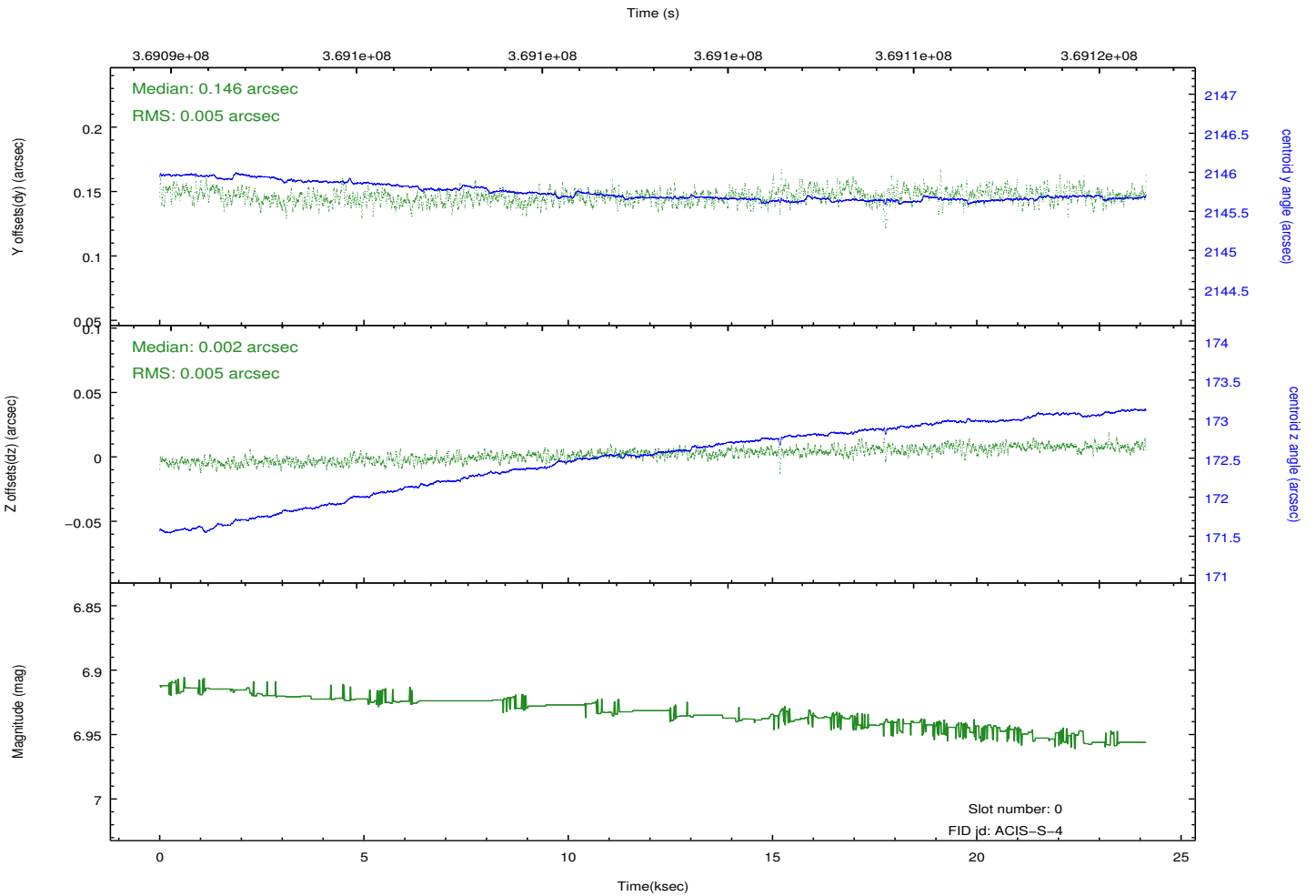
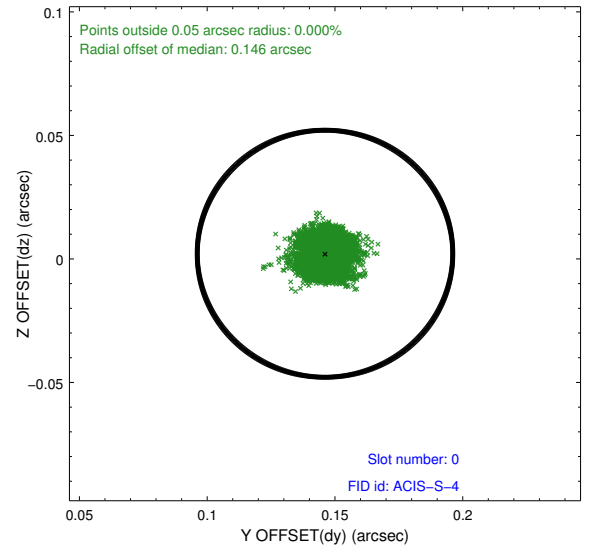
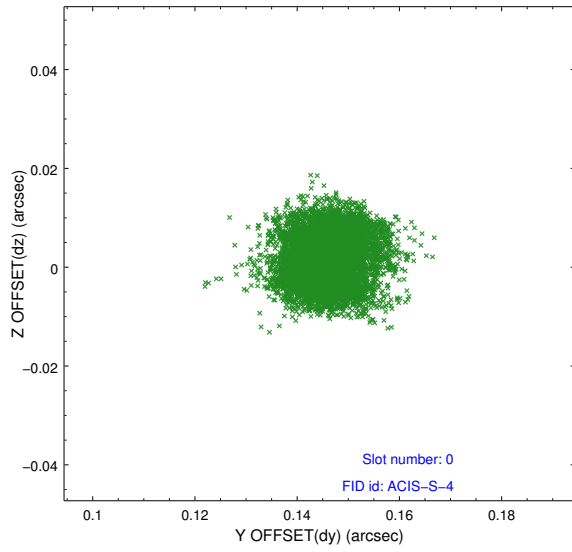


## 2.4.5 Slot 7

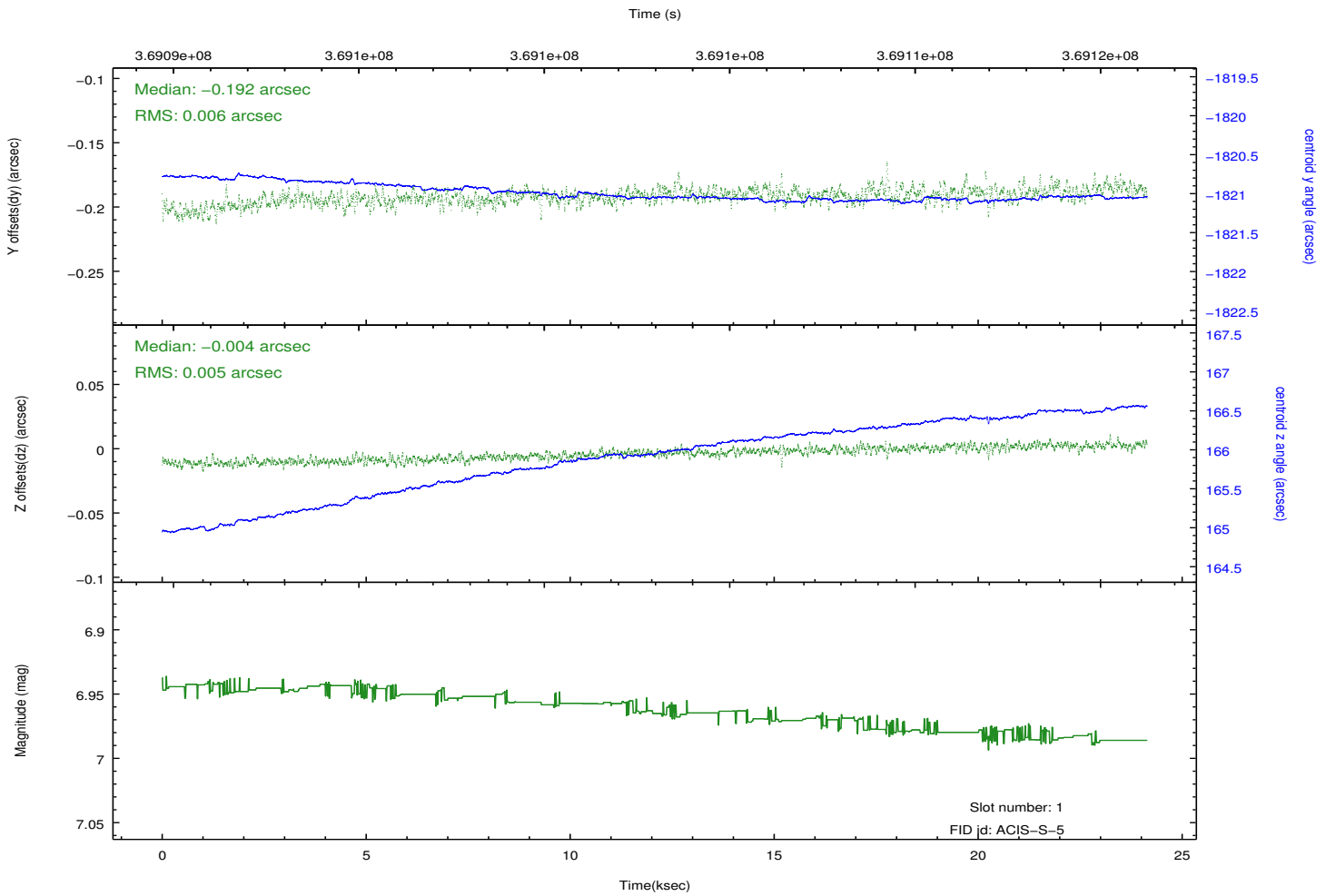
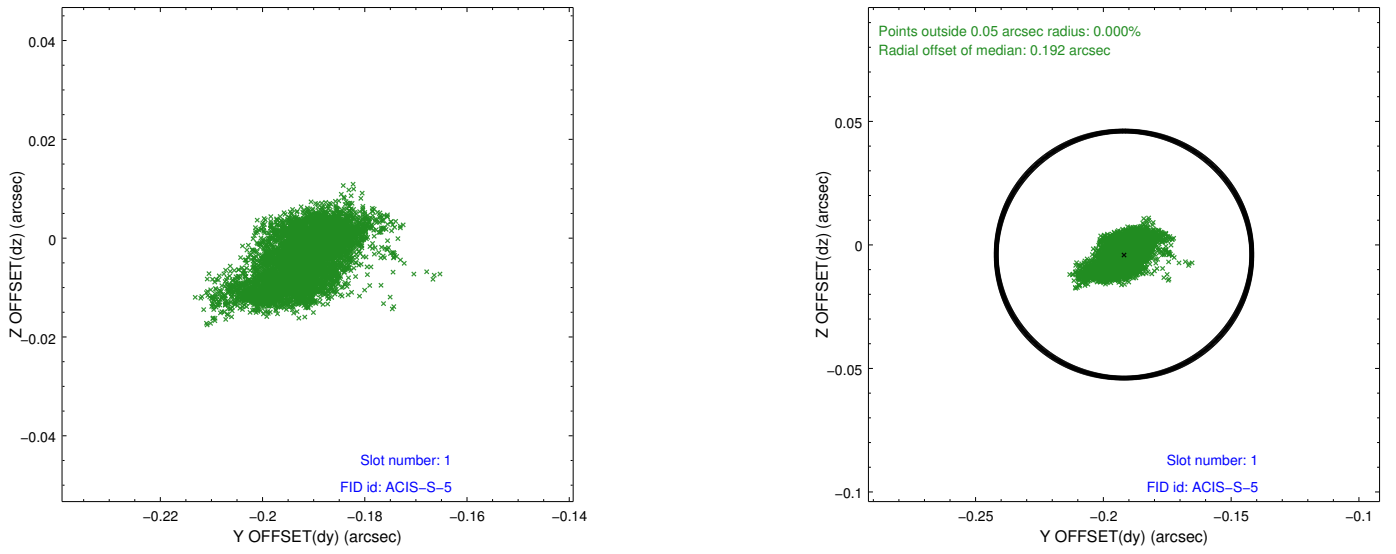


## 2.5 FID Slots

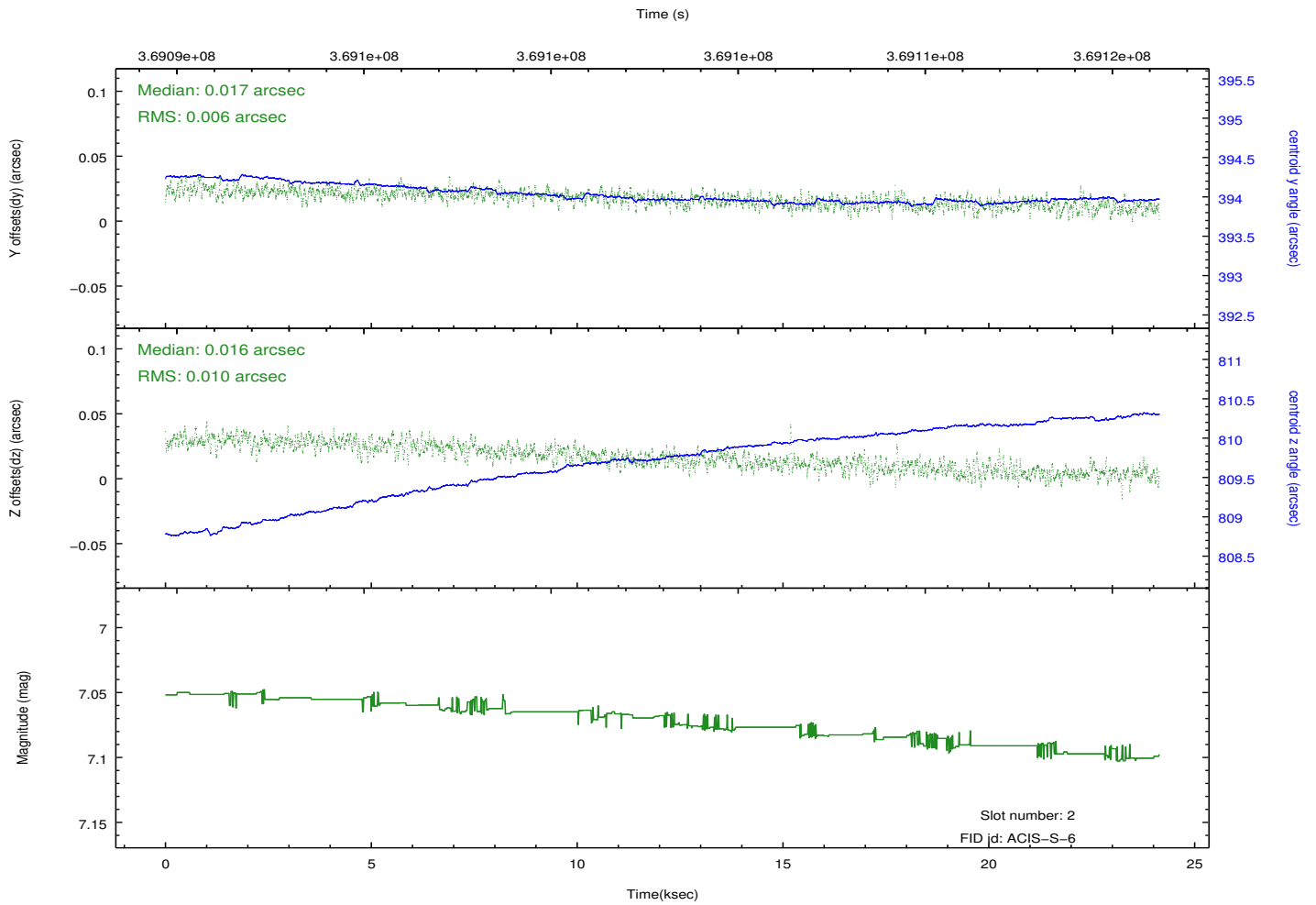
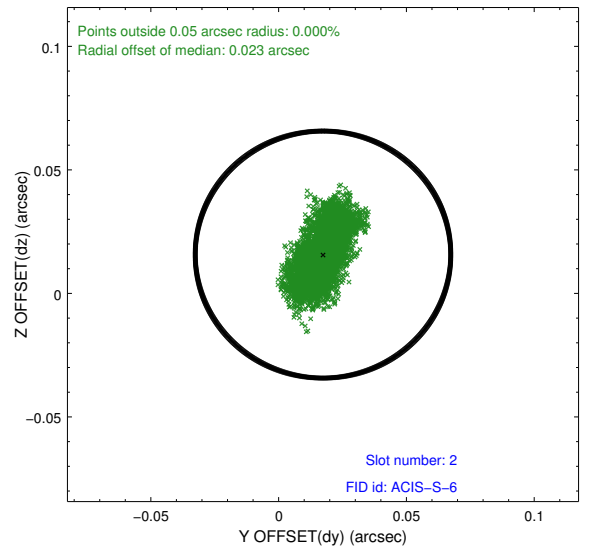
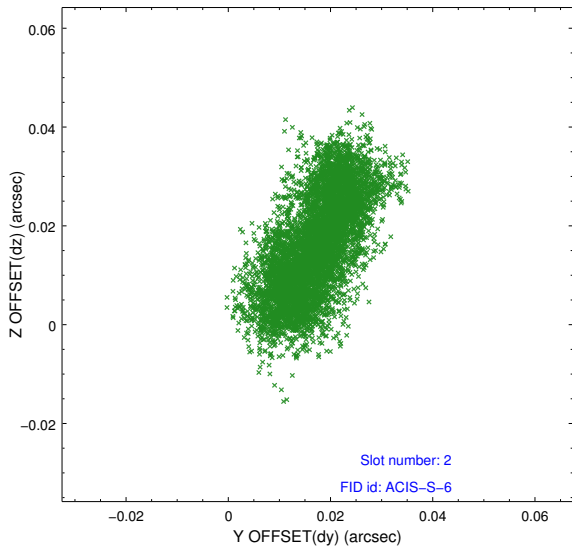
### 2.5.1 Slot 0



## 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)	2015.07.22
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	24.139700185657

## 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.