

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 14902 - L2 Version 2  
Chandra X-Ray Center

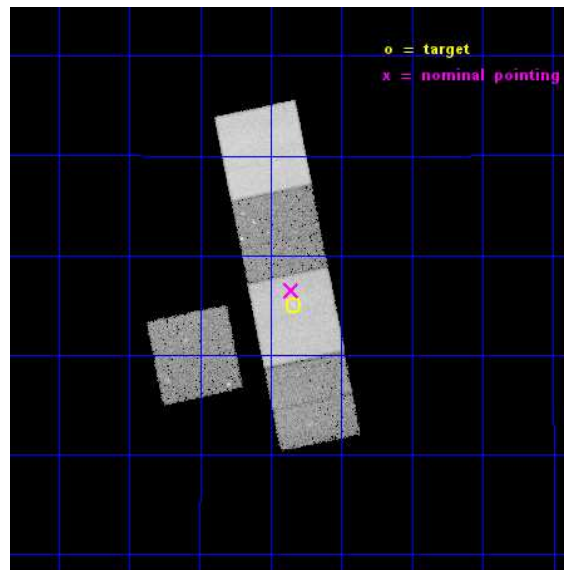
L2 Processing Date : Dec 1 2014

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# 1 Front

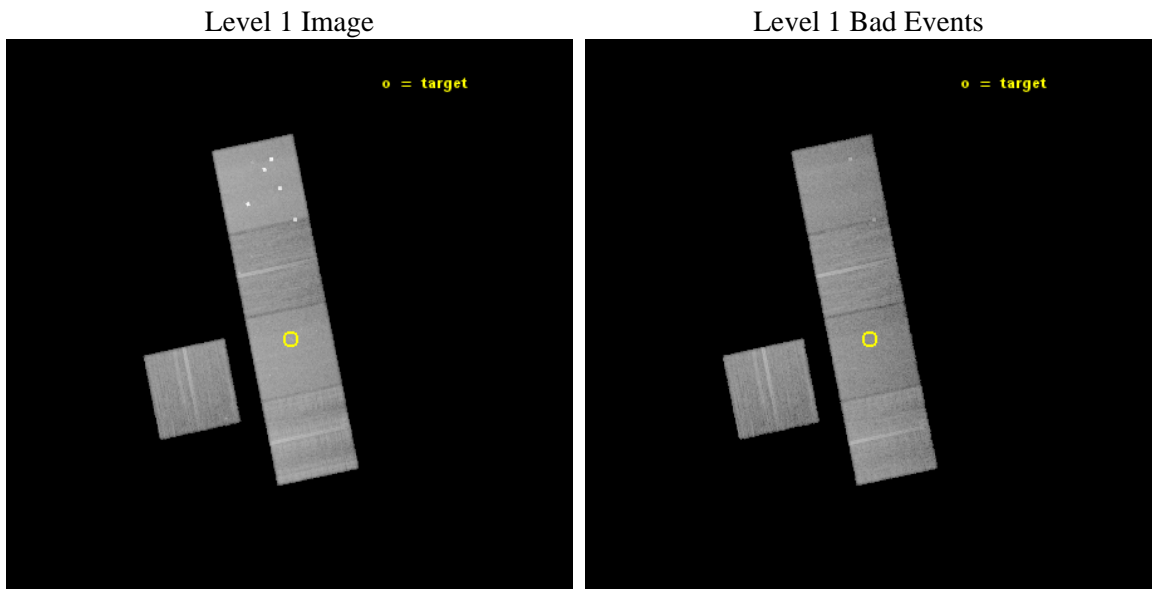
seq_num	601032	Sequence number
obs_id	14902	Observation id
title	PROBING GALAXY FORMATION WITH FAST ROTATING ELLIPTICAL GALAXIES	Pr
observer	Rebecca Canning	Principal investigator
object	NGC4417	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	186.710833	Observer's specified target RA [deg]
dec_targ	9.584111	Observer's specified target Dec [deg]
ra_nom	186.71328692936	Nominal RA [deg]
dec_nom	9.6082257697306	Nominal Dec [deg]
roll_nom	78.363415169178	Nominal Roll [deg]
revision	2	Processing version of data
ontime	30060.633886337	Sum of GTIs [s]
livetime	29667.869574296	Livetime [s]
ontime3	30060.510766327	Sum of GTIs [s]
ontime5	30060.592846334	Sum of GTIs [s]
ontime6	30060.551806331	Sum of GTIs [s]
ontime7	30060.633886337	Sum of GTIs [s]
ontime8	30060.469726324	Sum of GTIs [s]
l2events	275232	Number of level 2 events



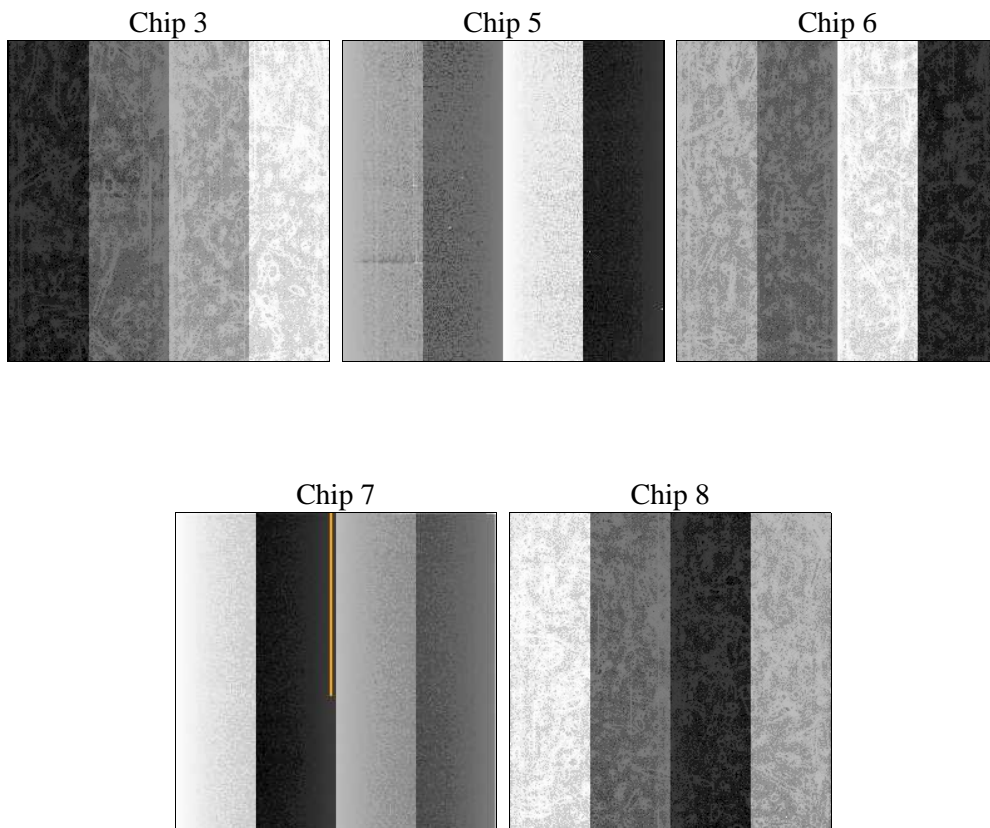
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	30000.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	30060.633886337	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime3	30060.510766327	Sum of GTIs [s]
date	2014-12-01T09:08:46	Date and time of file creation	ontime5	30060.592846334	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	30060.551806331	Sum of GTIs [s]
			ontime7	30060.633886337	Sum of GTIs [s]
			ontime8	30060.469726324	Sum of GTIs [s]
			l1events	1091355	Number of level 1 events

### 2.1.4 Events

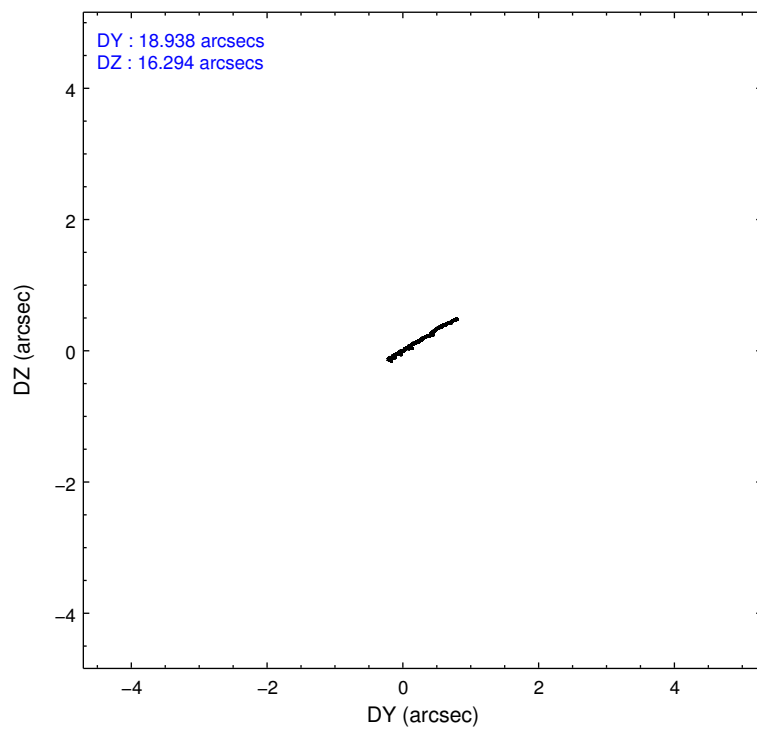
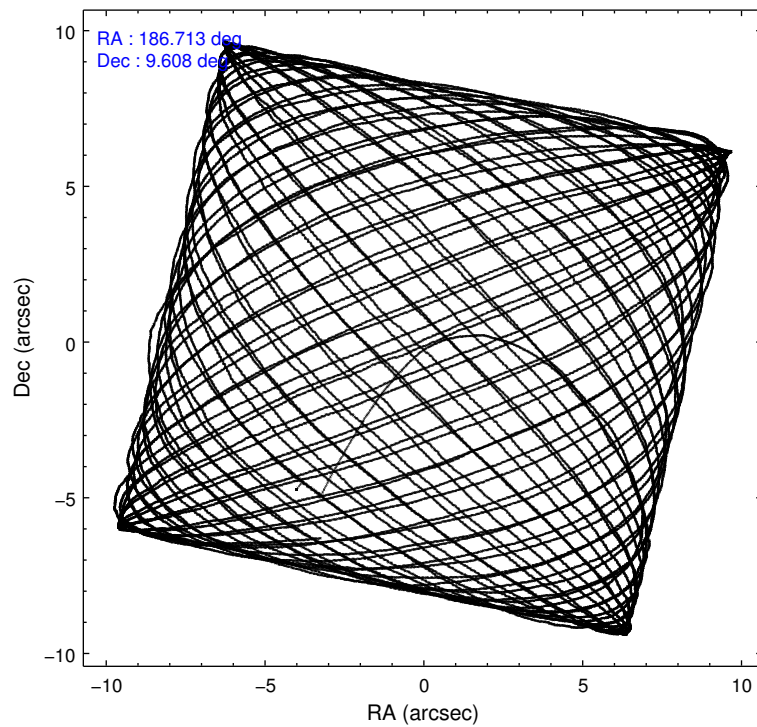
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	160876	306745	170952	224400	228382
rejected events	142383	140612	149493	126505	163062
rejected %	88%	45%	87%	56%	71%

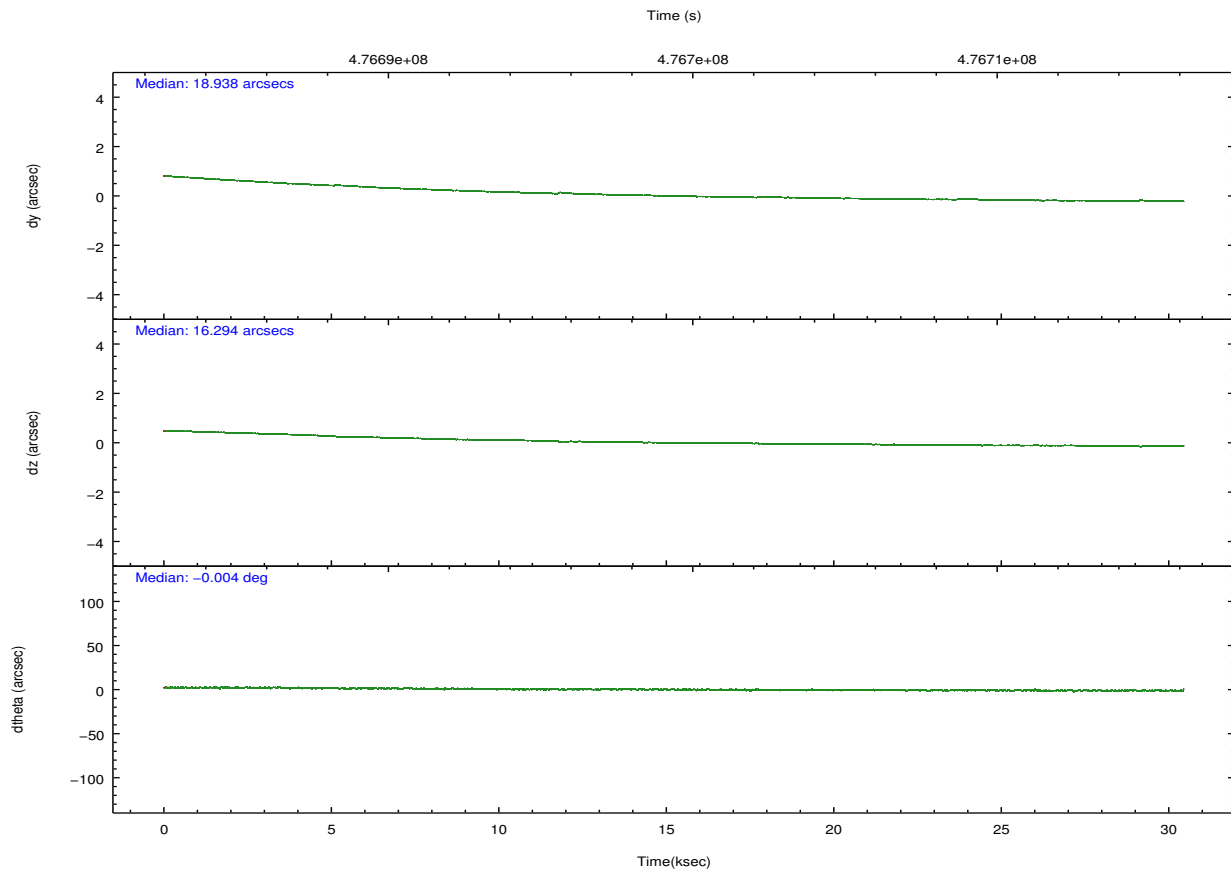
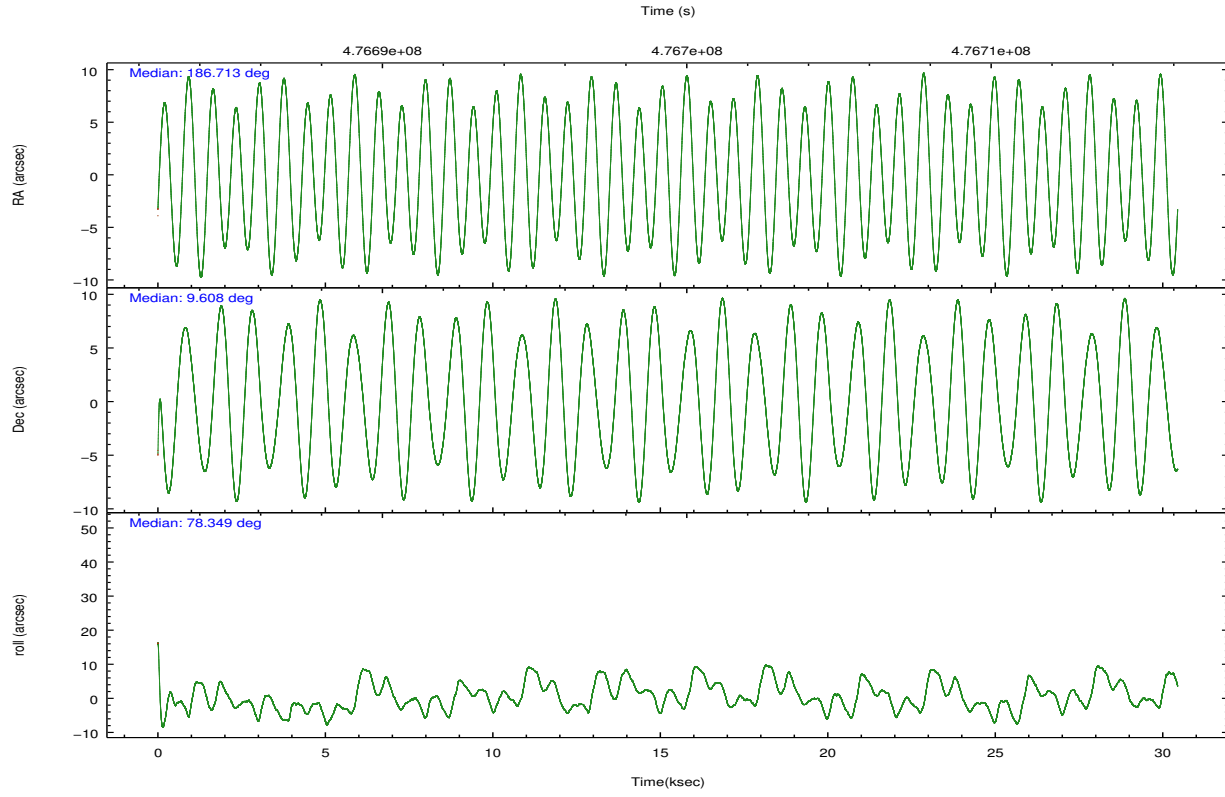
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	6690	40414	8096	8900	18858
	4%	13%	4%	3%	8%
grade 1 events	86	1354	92	246	223
	0%	0%	0%	0%	0%
grade 2 events	3950	44926	4667	20186	14575
	2%	14%	2%	8%	6%
grade 3 events	2040	4981	2063	8211	7832
	1%	1%	1%	3%	3%
grade 4 events	2036	4588	2029	8310	7123
	1%	1%	1%	3%	3%
grade 5 events	8301	19260	8430	22872	12417
	5%	6%	4%	10%	5%
grade 6 events	3780	71257	4612	52307	16940
	2%	23%	2%	23%	7%
grade 7 events	133993	119965	140963	103368	150414
	83%	39%	82%	46%	65%

## 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	186.722389	186.7132869293571	CCD I2 on	N	N
[deg] Pointing Dec	9.582410	9.608225769730595	CCD I3 on	Y	Y
[deg] Pointing Roll	78.205262	78.36341516917838	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	O1	Y
[s] Observation start time (MET)	476684606.184000	476683383.90667	CCD S5 on	N	N
Observation start date	2013-02-08T04:22:19	2013-02-08T04:03:03	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	476714606.184000	476714861.14587	On-chip summing requested	N	N
Observation end date	2013-02-08T12:42:19	2013-02-08T12:47:41	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





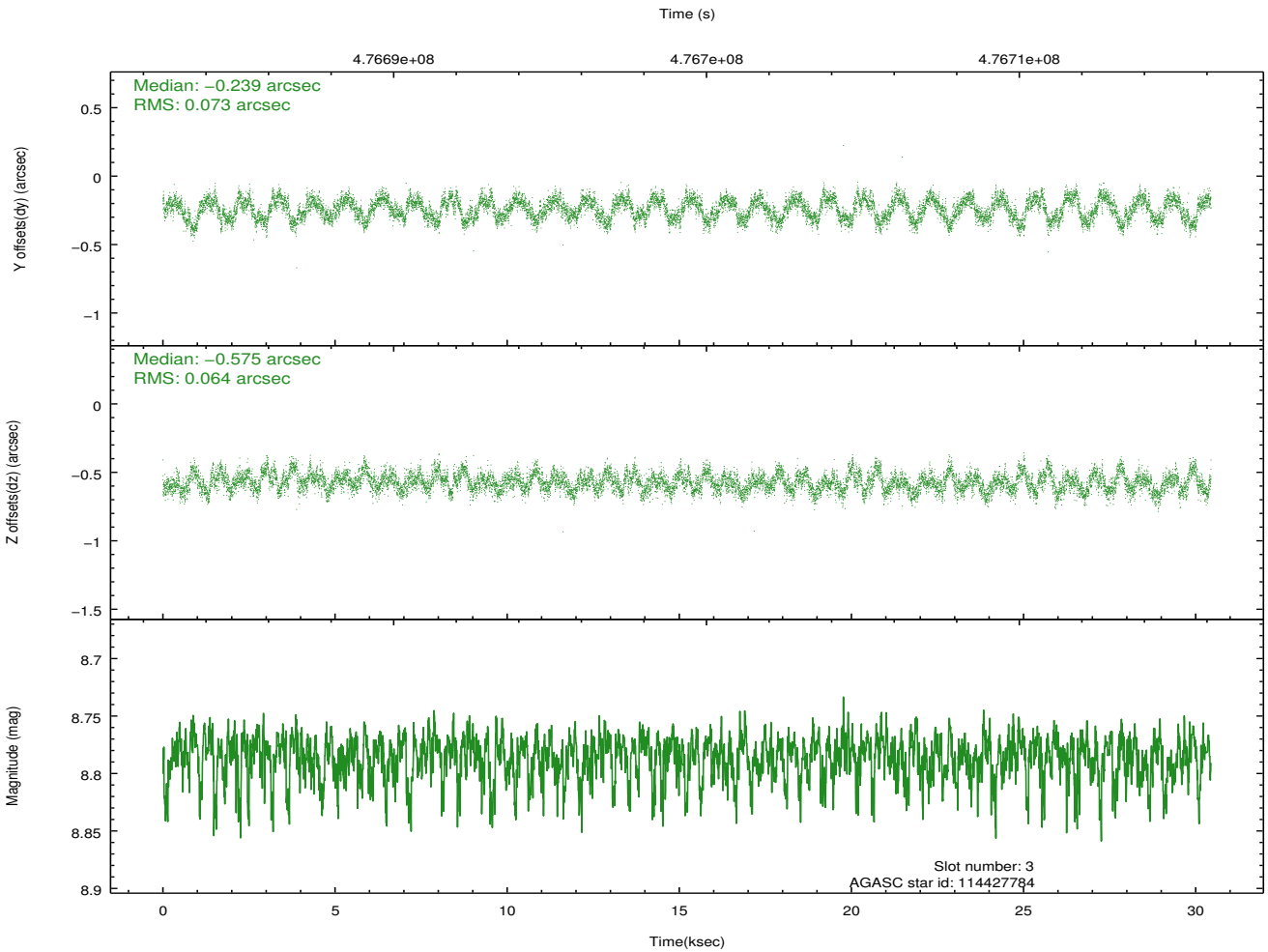
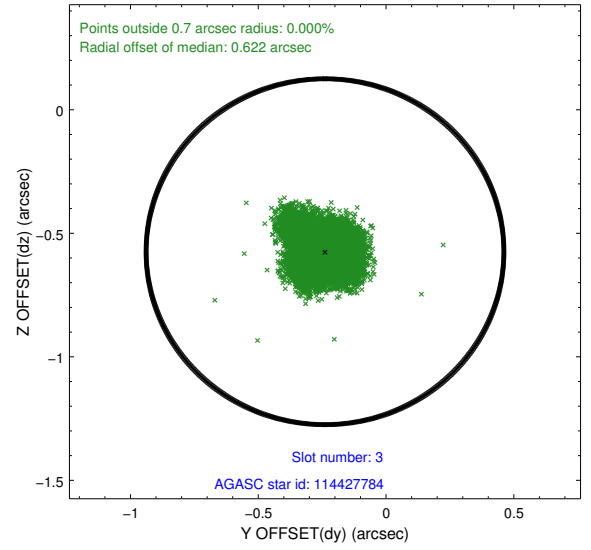
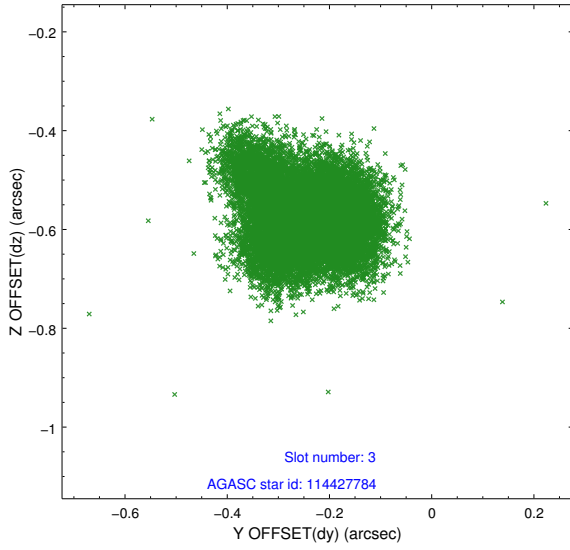
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.05	7426	-0.132	-0.037	0.011	0.019	0.000000	0.000000	-772.25	-1737.80
1	FID		ACIS-S-4	7.13	7426	0.316	0.074	0.008	0.013	0.000000	0.000000	2141.45	170.70
2	FID		ACIS-S-5	7.16	7426	-0.216	-0.028	0.008	0.015	0.000000	0.000000	-1825.08	164.37
3	GUIDE	used	114427784	8.79	14838	-0.239	-0.575	0.104	0.165	186.068583	9.508052	-735.06	2218.08
4	GUIDE	used	114558952	9.44	14796	-0.115	0.055	0.140	0.233	186.929093	9.345397	-684.60	-892.63
5	GUIDE	used	114561264	9.61	14838	0.117	0.308	0.138	0.226	186.762657	8.969089	-2131.59	-591.31
6	GUIDE	used	114562600	8.75	14846	0.045	0.250	0.111	0.165	186.973653	8.898661	-2225.85	-1377.49
7	GUIDE	used	114558824	9.72	14746	0.200	-0.032	0.214	0.326	187.023305	9.331255	-665.76	-1231.38

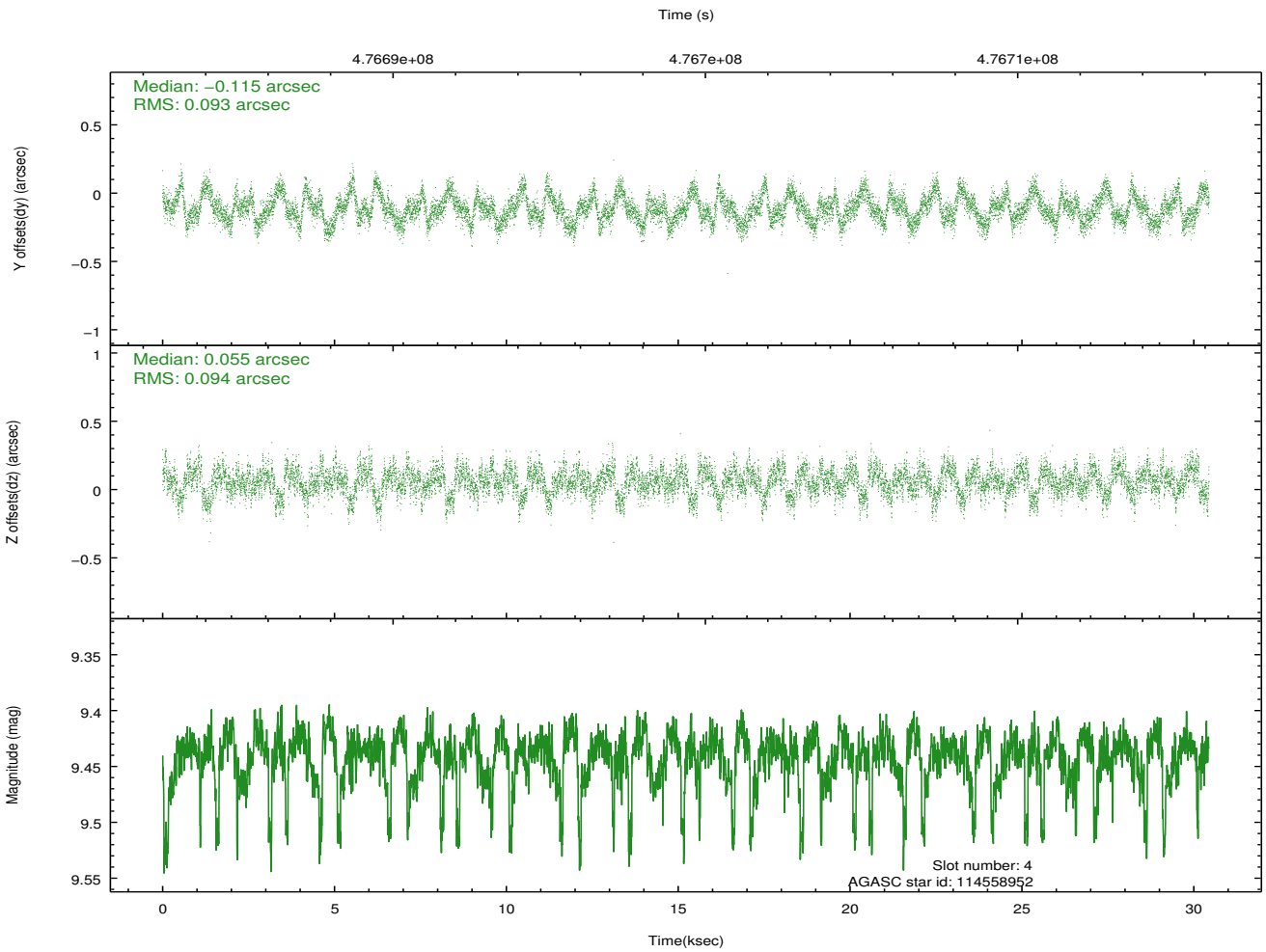
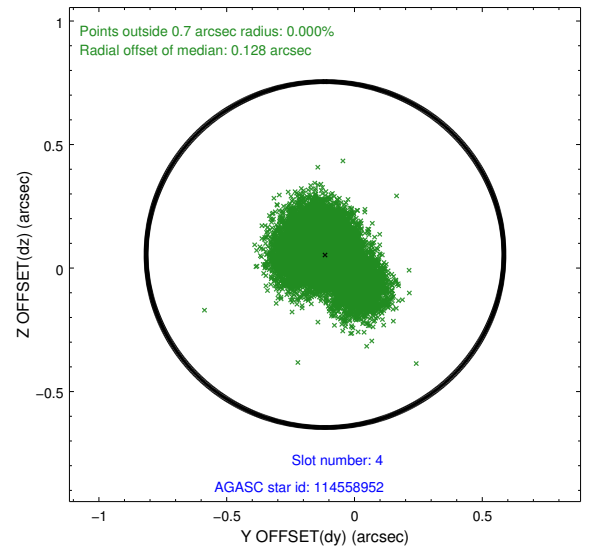
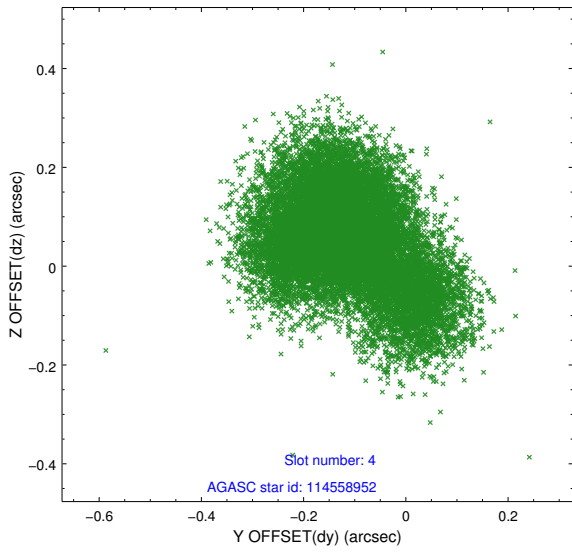
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## 2.4 Star Slots

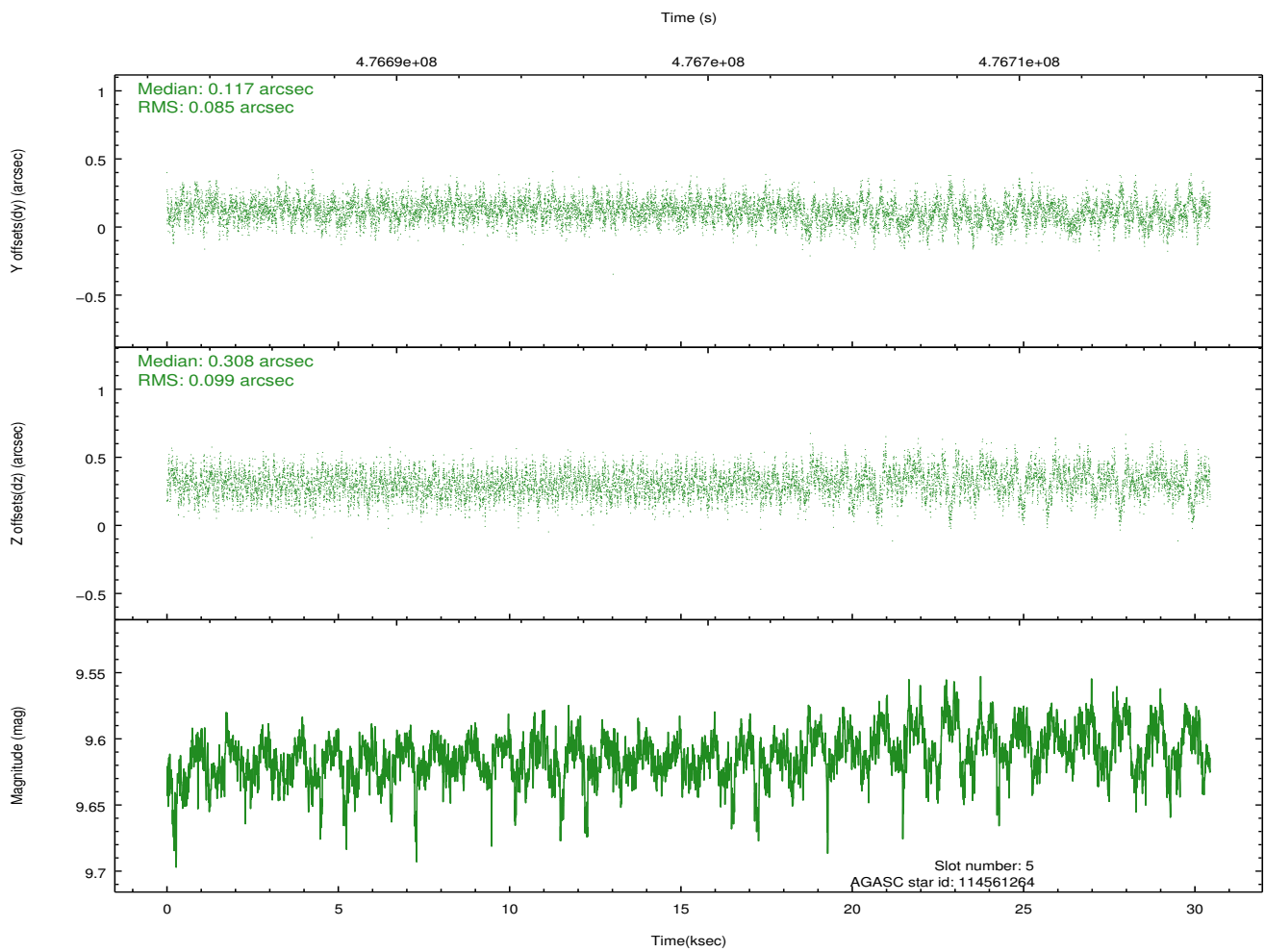
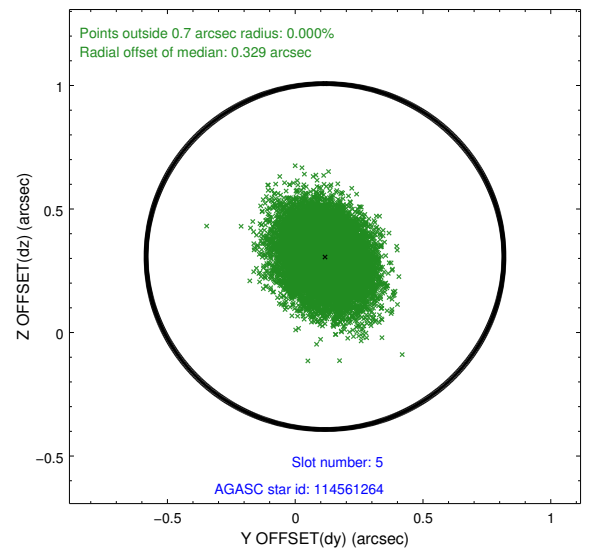
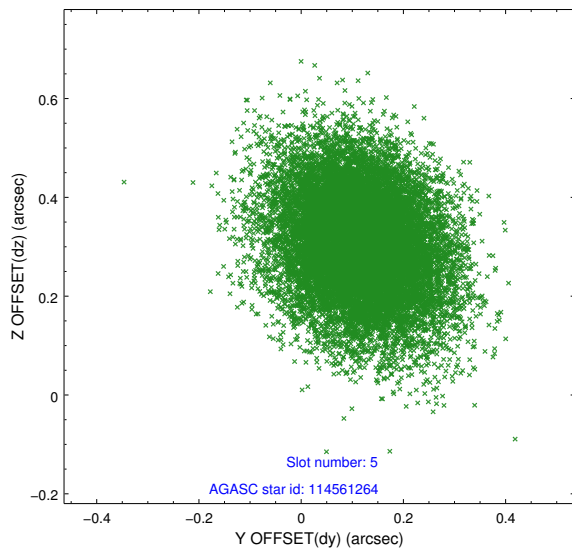
### 2.4.1 Slot 3



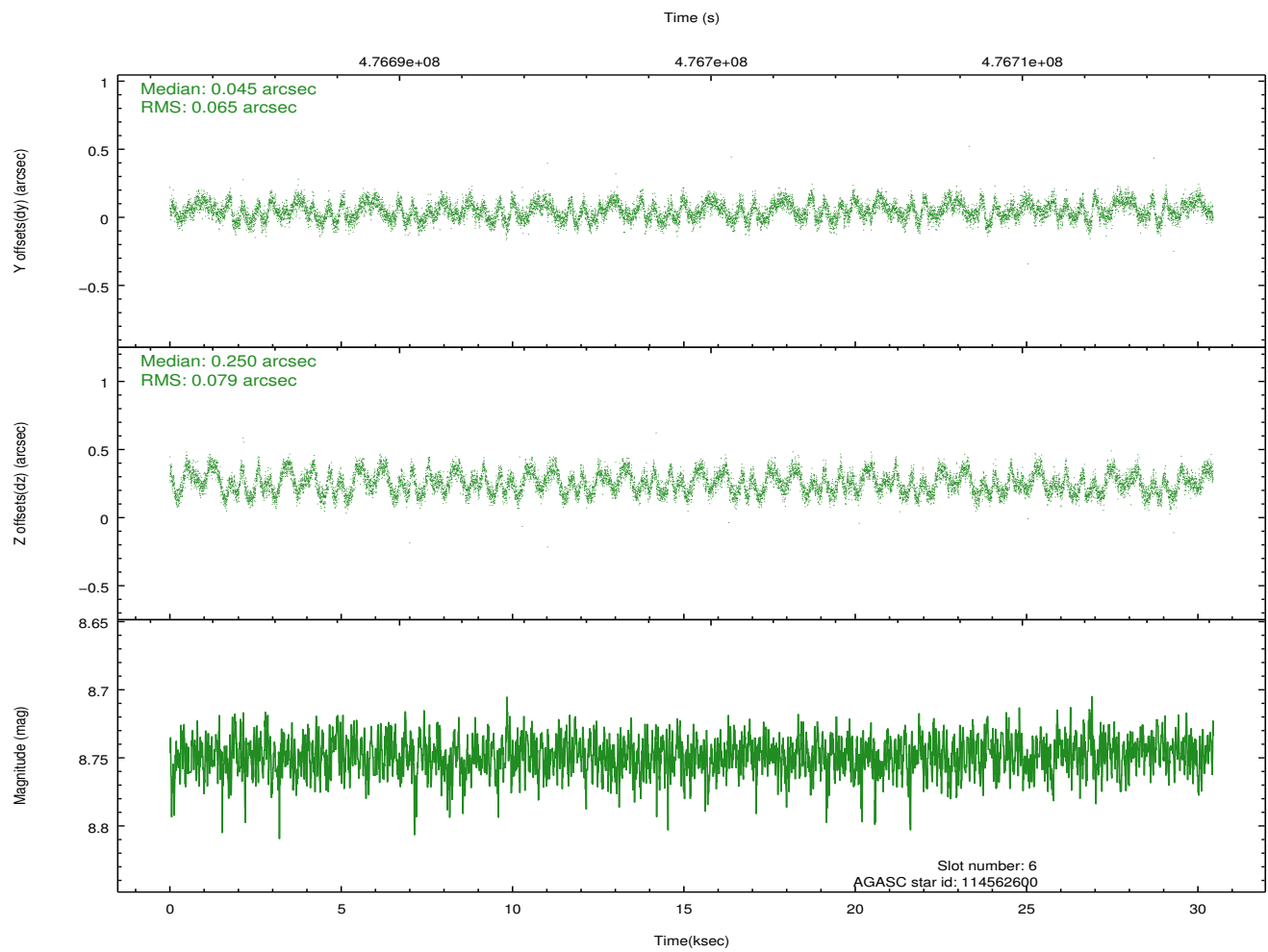
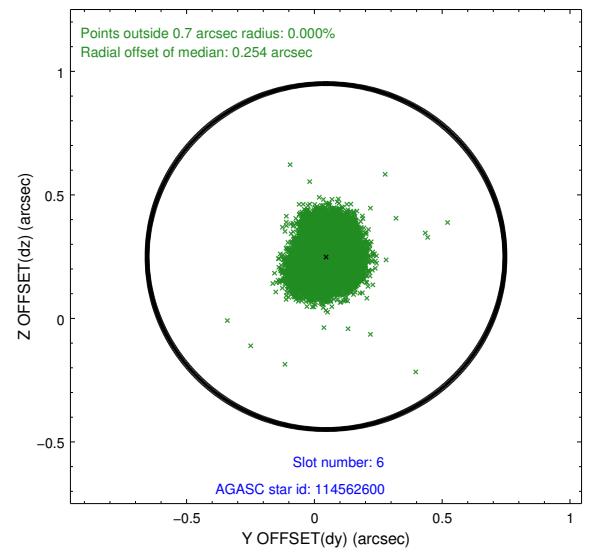
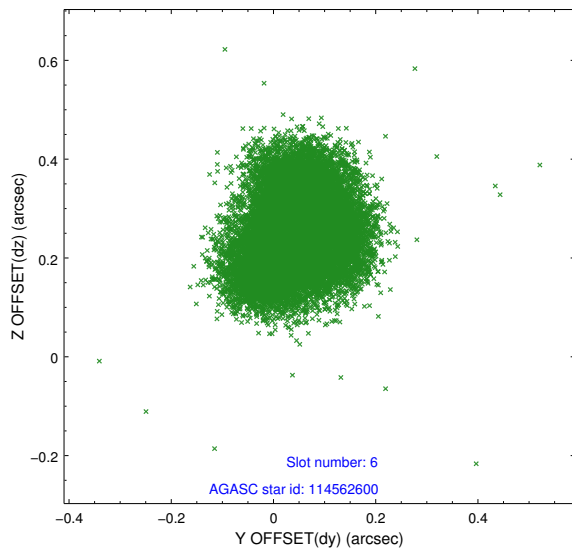
### 2.4.2 Slot 4



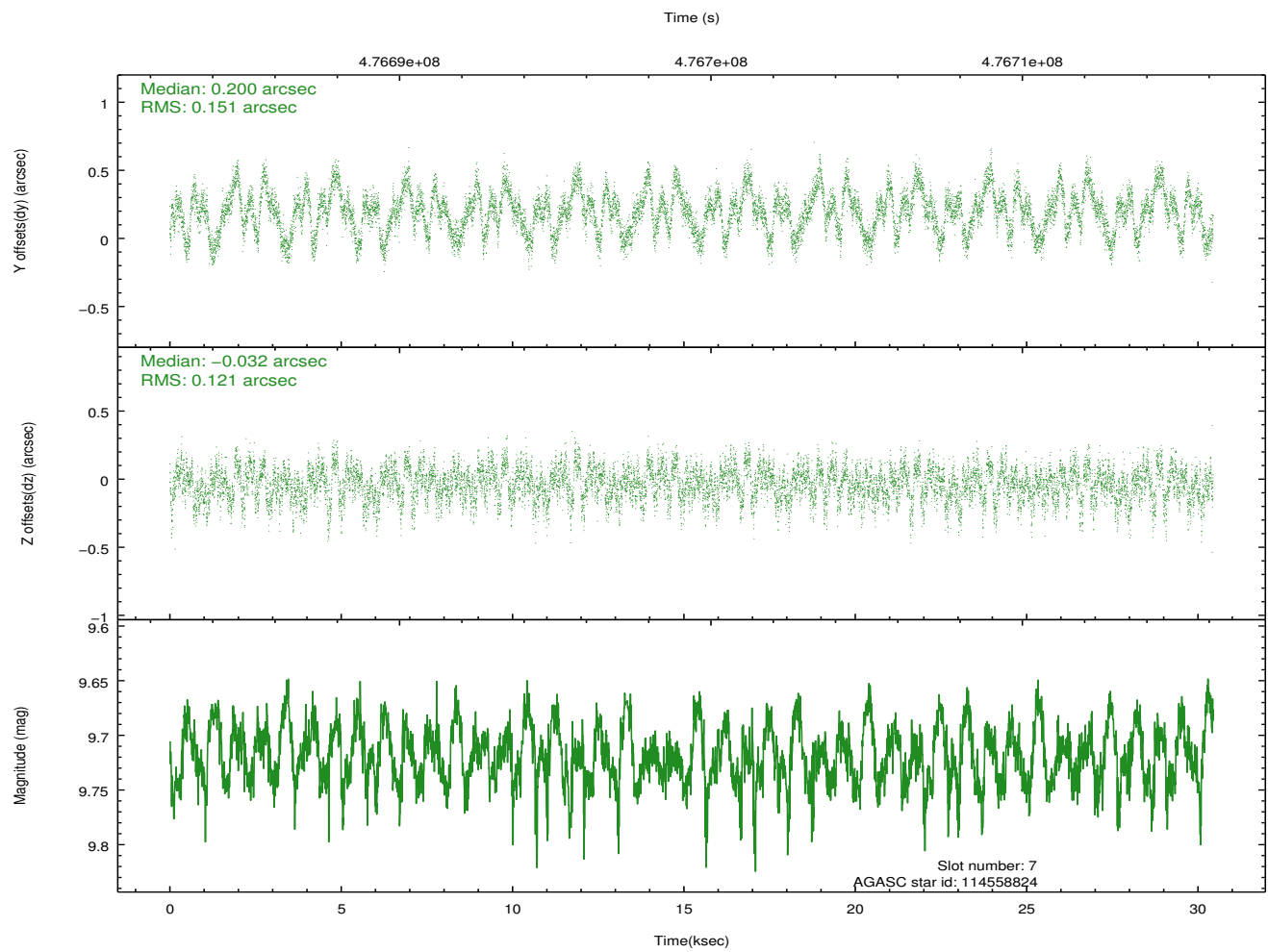
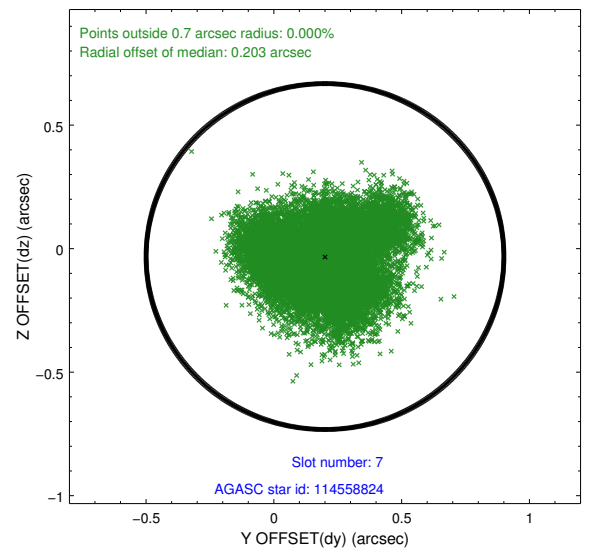
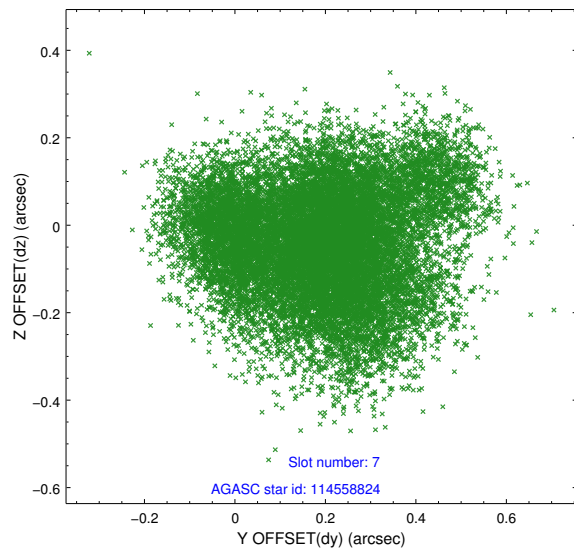
### 2.4.3 Slot 5



## 2.4.4 Slot 6

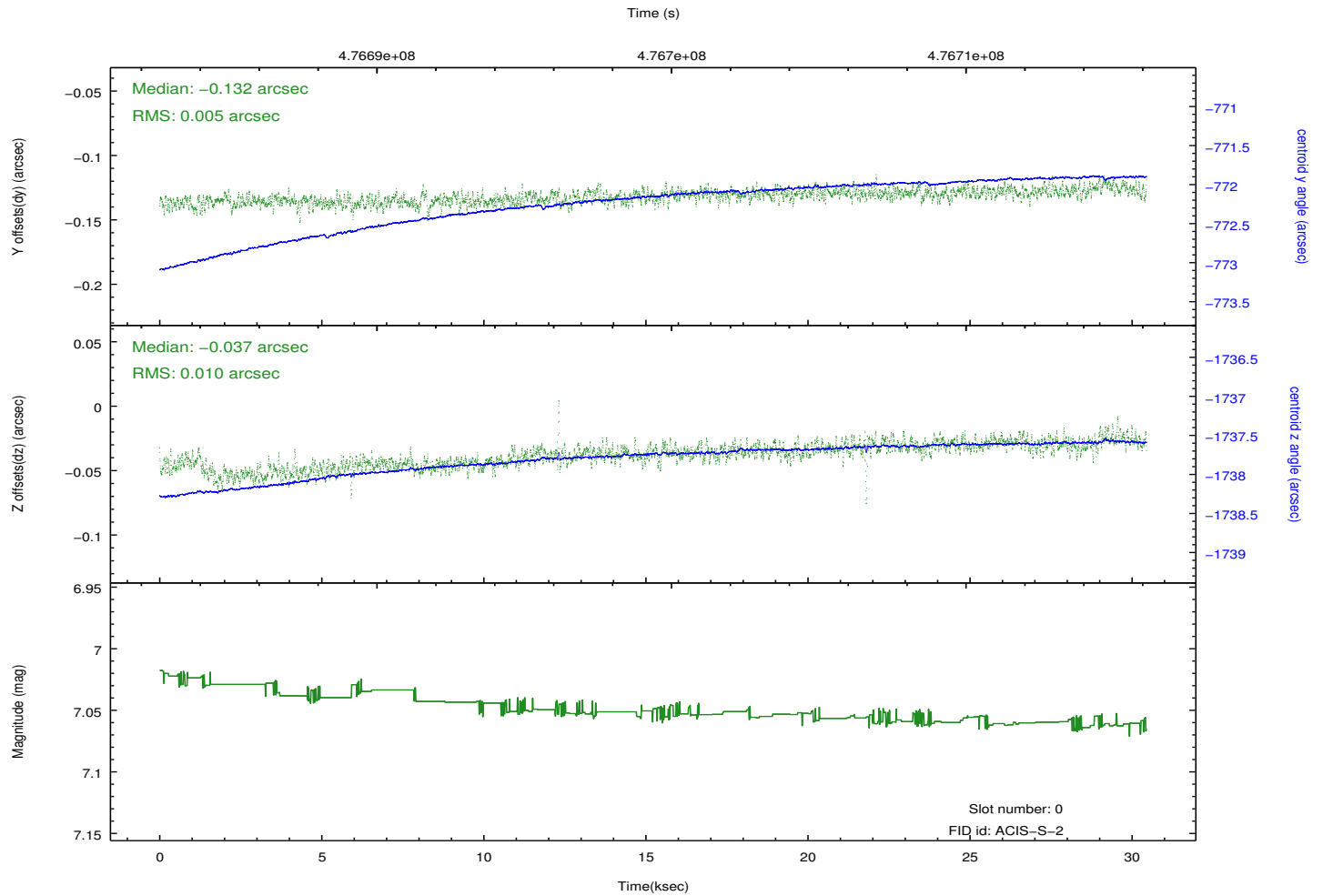
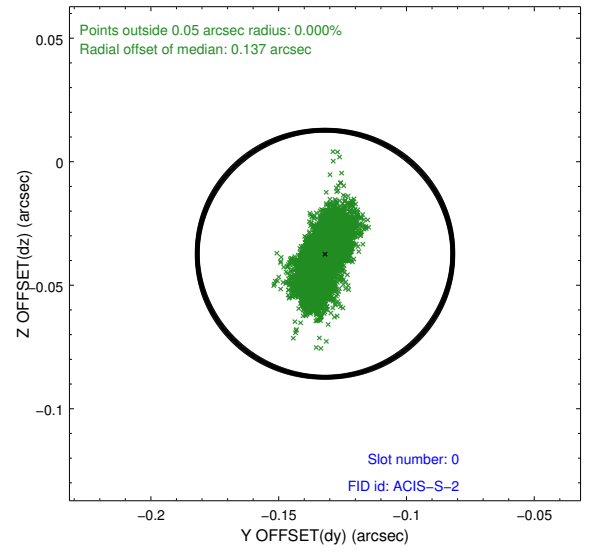
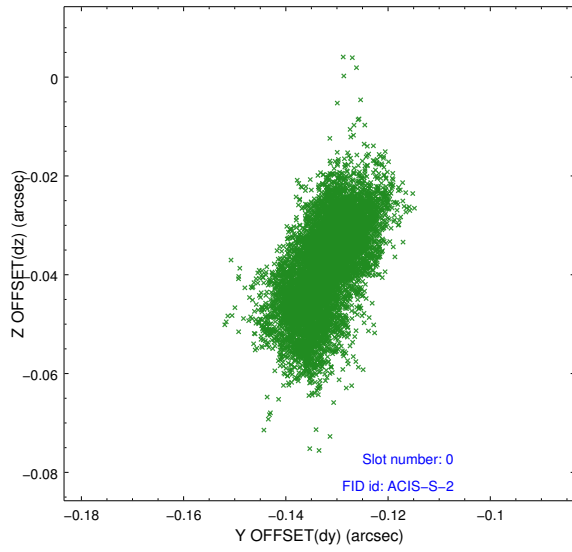


## 2.4.5 Slot 7

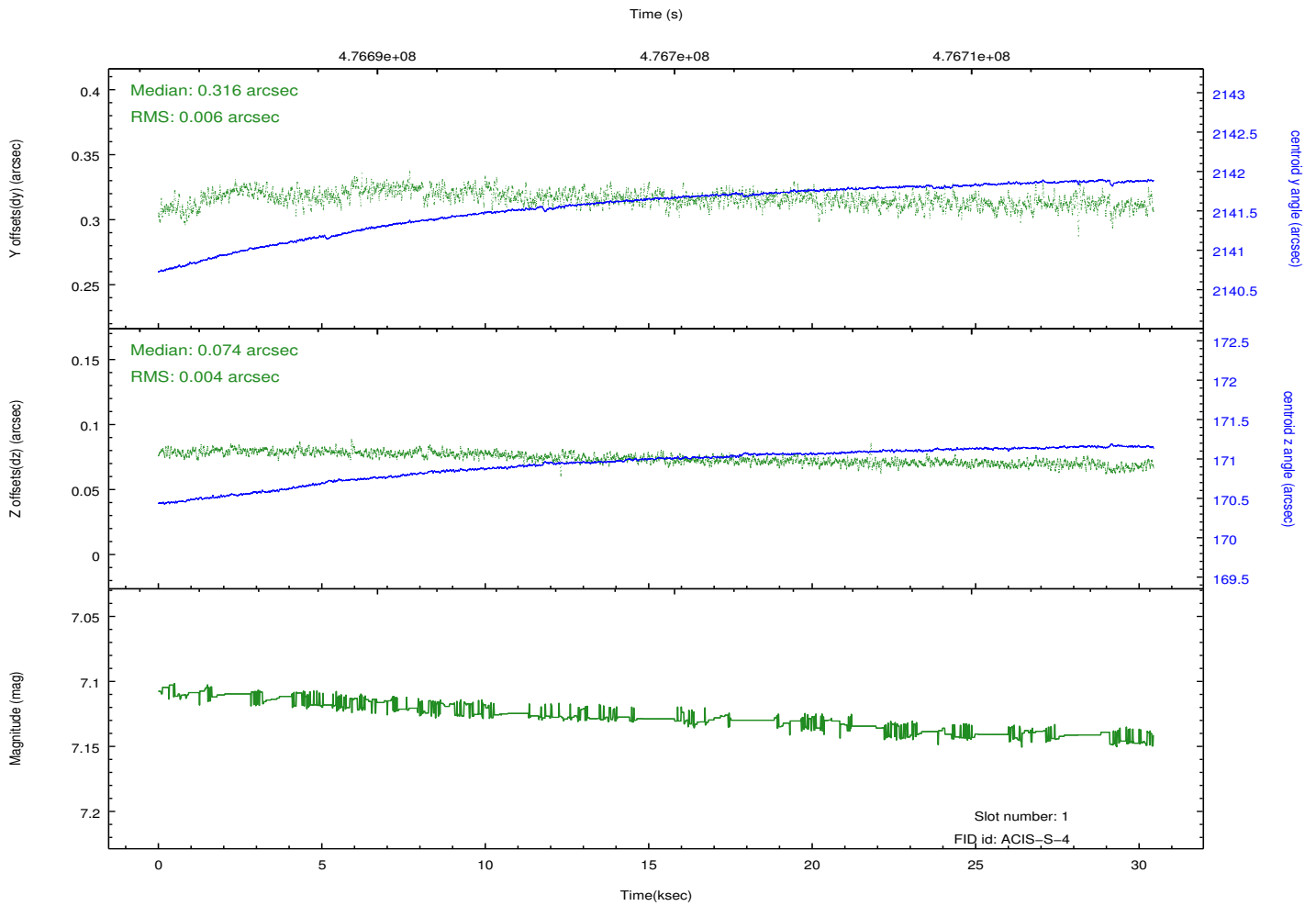
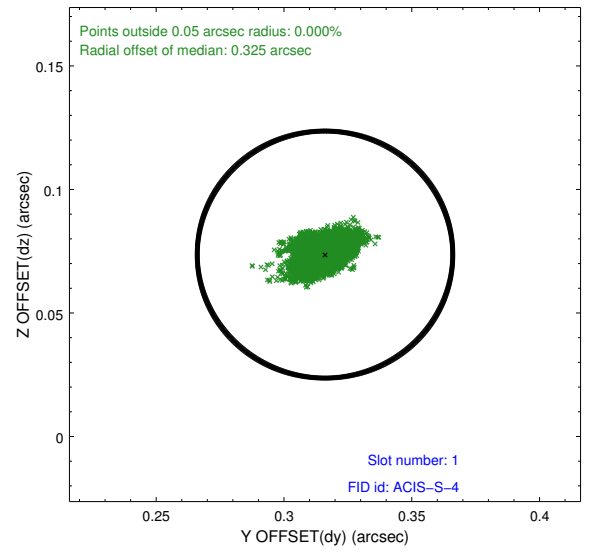
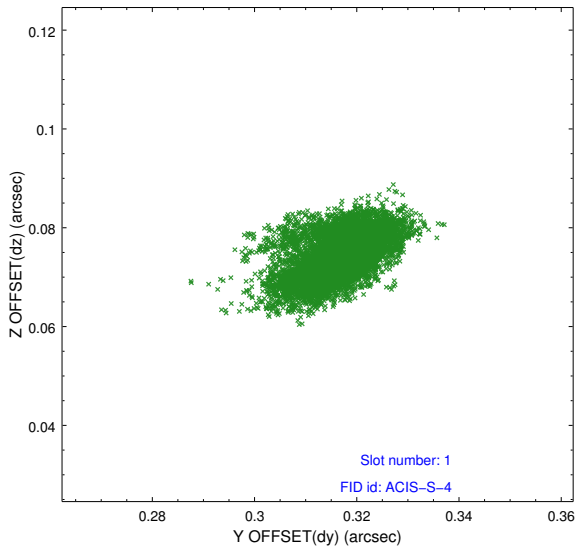


## 2.5 FID Slots

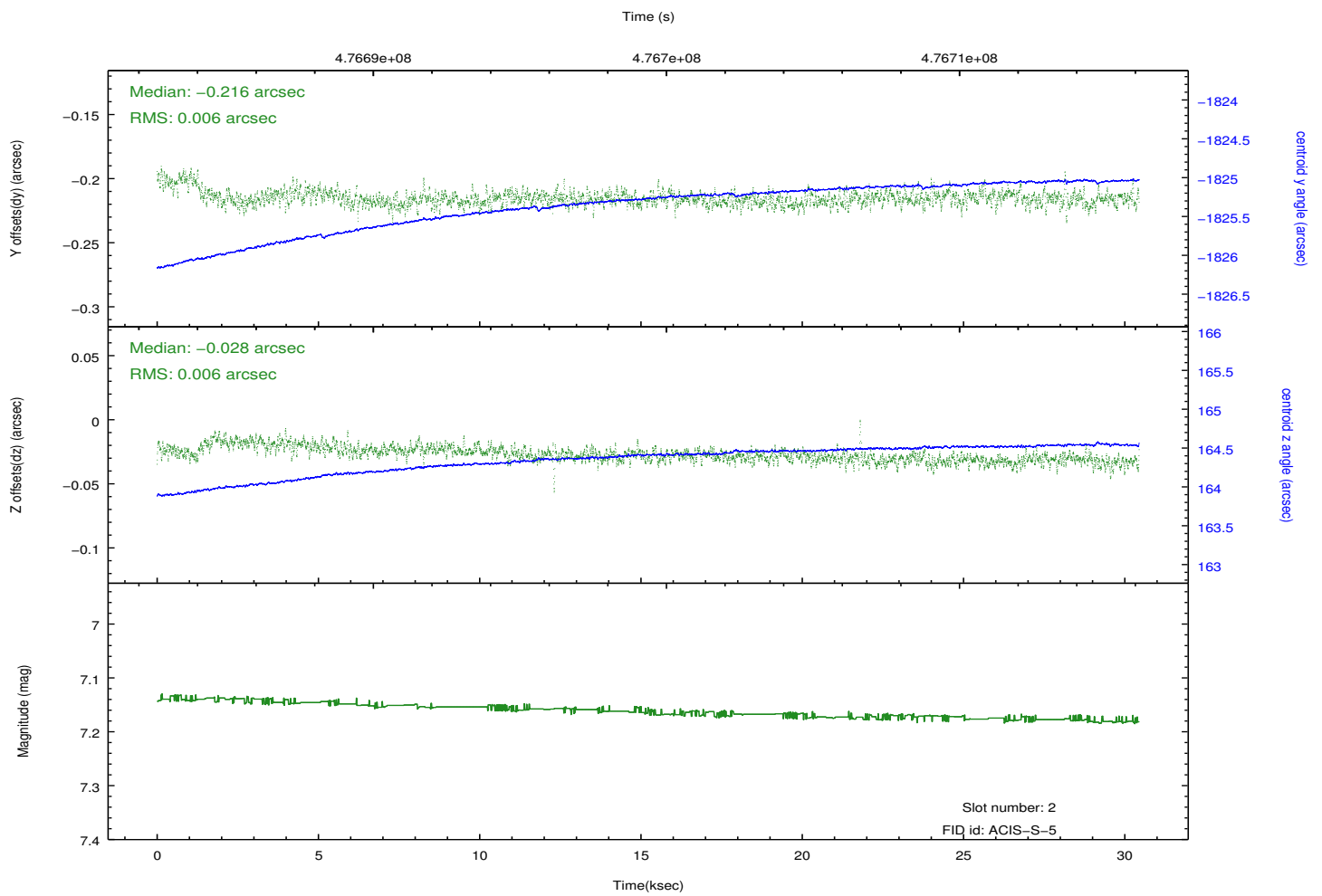
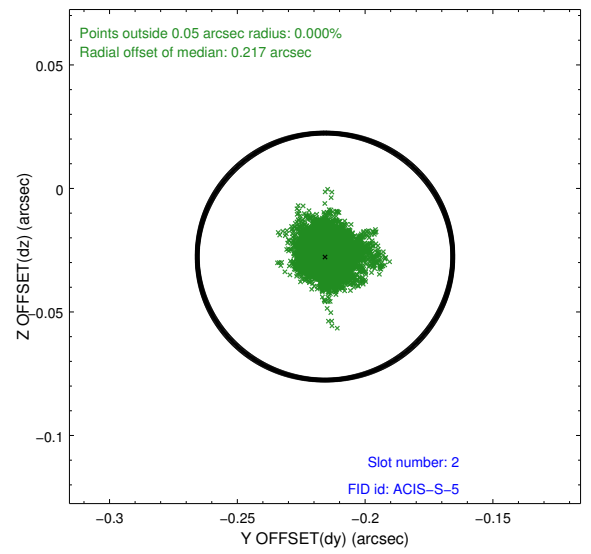
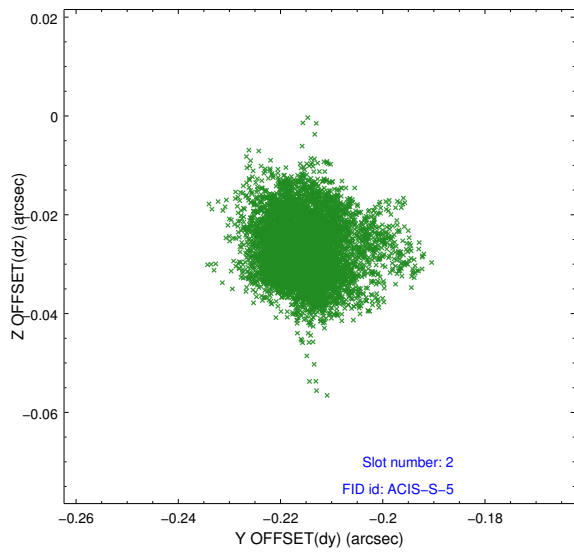
### 2.5.1 Slot 0



## 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)	2014.12.09
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	30.060633886337

## 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.