

# V&V Reference Report

## L2 ASCDS Version : 8.5.1.1

Observation 14905 - L2 Version 2  
Chandra X-Ray Center

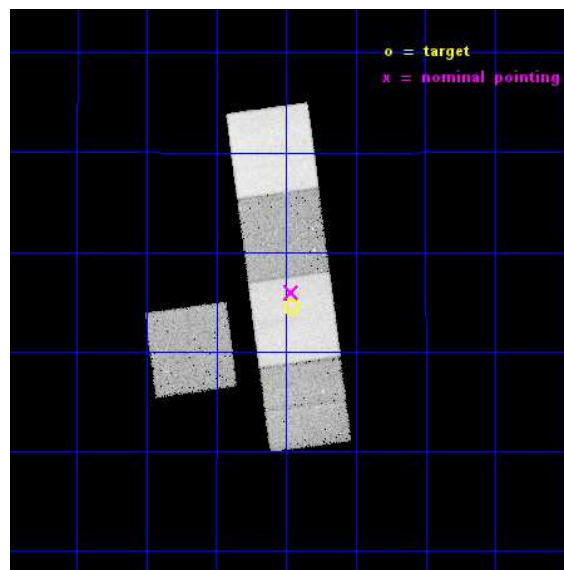
L2 Processing Date : Dec 1 2014

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# 1 Front

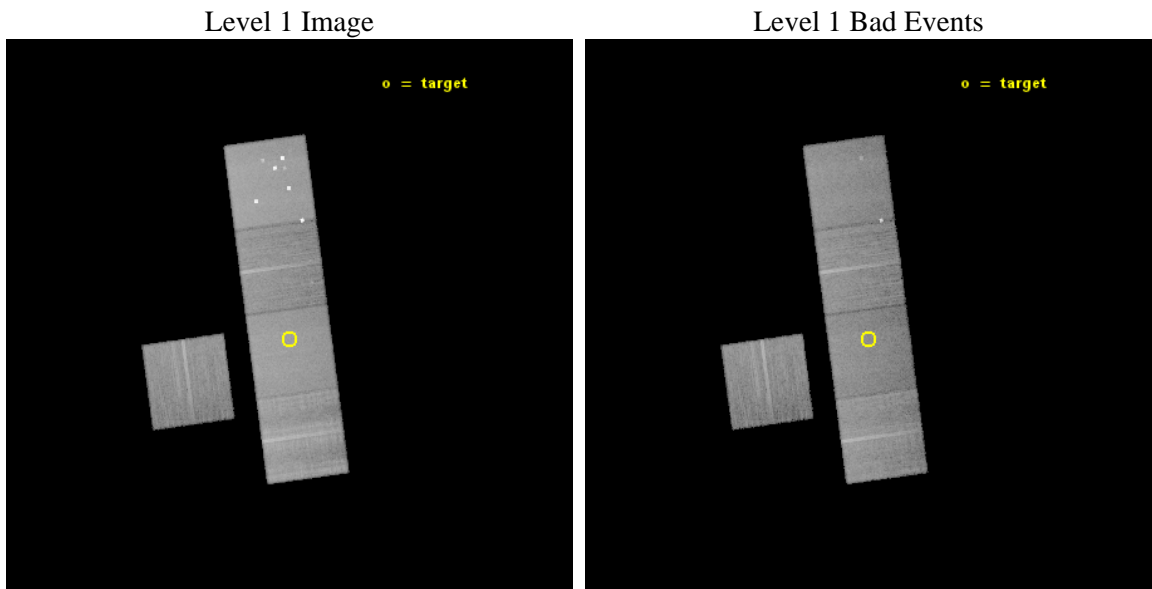
seq_num	601035	Sequence number
obs_id	14905	Observation id
title	PROBING GALAXY FORMATION WITH FAST ROTATING ELLIPTICAL GALAXIES	Pr
observer	Rebecca Canning	Principal investigator
object	NGC4458	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	187.239583	Observer's specified target RA [deg]
dec_targ	13.241889	Observer's specified target Dec [deg]
ra_nom	187.24038852503	Nominal RA [deg]
dec_nom	13.266130065582	Nominal Dec [deg]
roll_nom	82.267295454876	Nominal Roll [deg]
revision	2	Processing version of data
ontime	29771.243152499	Sum of GTIs [s]
livetime	29382.259943441	Livetime [s]
ontime3	29767.978982151	Sum of GTIs [s]
ontime5	29771.202143013	Sum of GTIs [s]
ontime6	29771.16110301	Sum of GTIs [s]
ontime7	29771.243152499	Sum of GTIs [s]
ontime8	29761.655862272	Sum of GTIs [s]
l2events	293694	Number of level 2 events



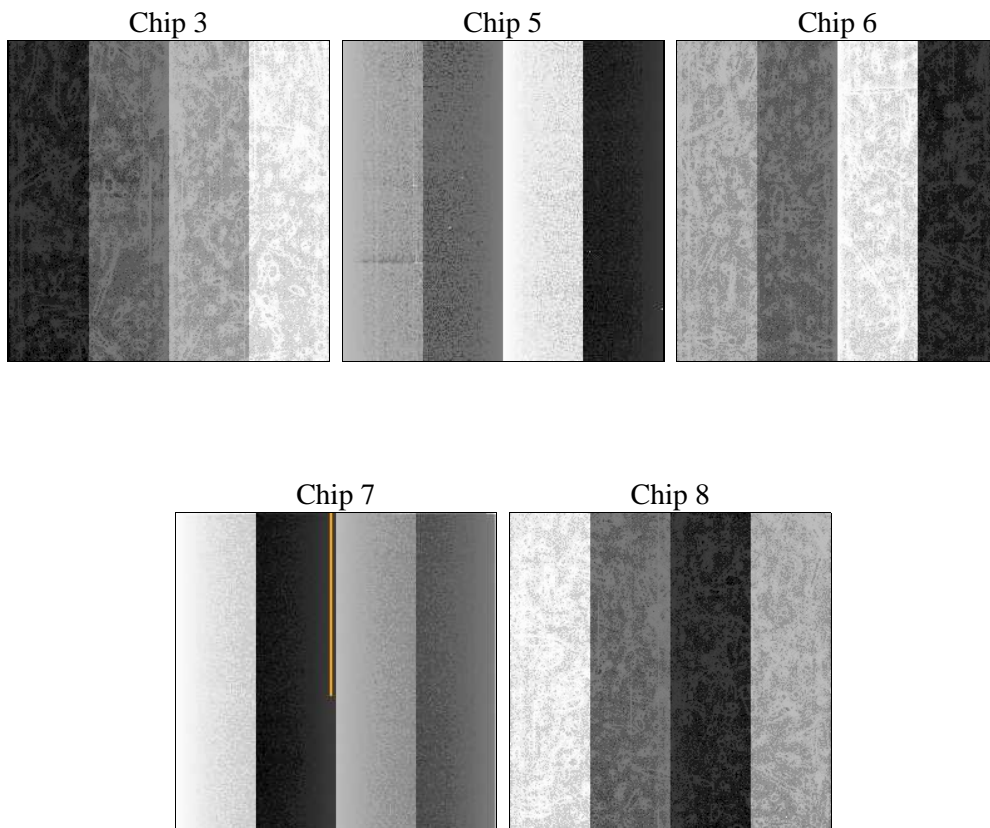
## 2 OBI

### 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	29771.243152499	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime3	29767.978982151	Sum of GTIs [s]
date	2014-12-01T14:20:23	Date and time of file creation	ontime5	29771.202143013	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	29771.16110301	Sum of GTIs [s]
			ontime7	29771.243152499	Sum of GTIs [s]
			ontime8	29761.655862272	Sum of GTIs [s]
			l1events	1123880	Number of level 1 events

### 2.1.4 Events

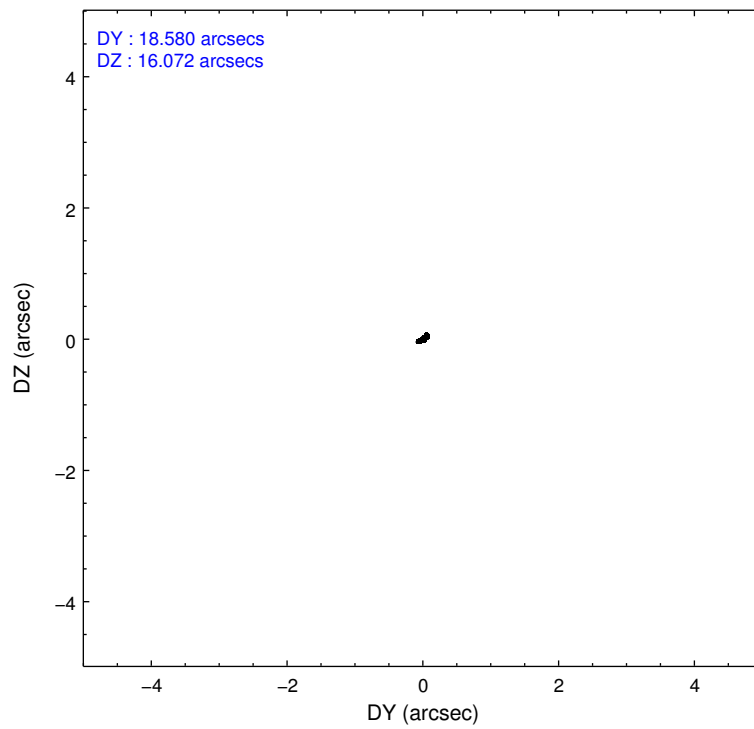
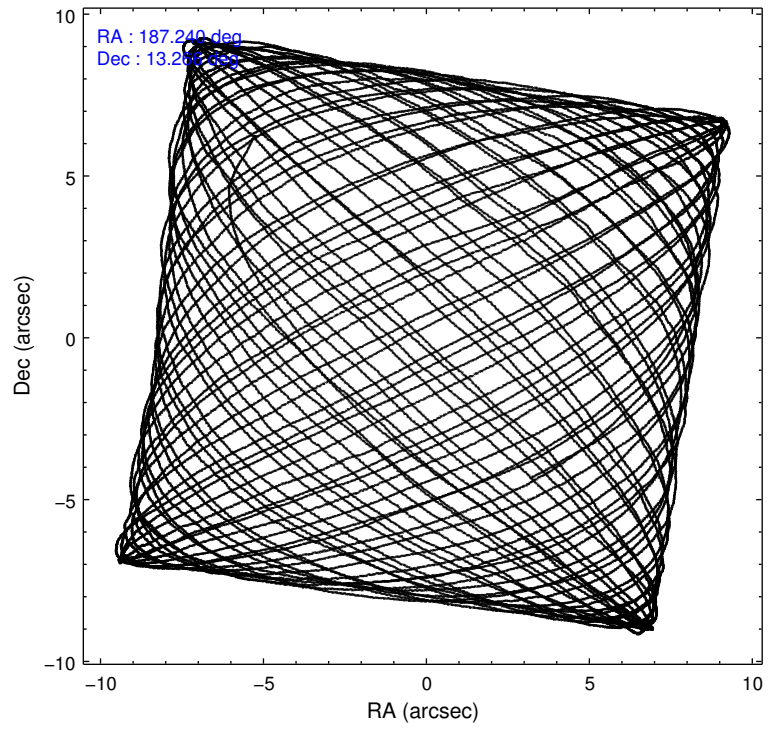
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	162968	320445	173037	229232	238198
rejected events	141057	142971	148127	125127	163754
rejected %	86%	44%	85%	54%	68%

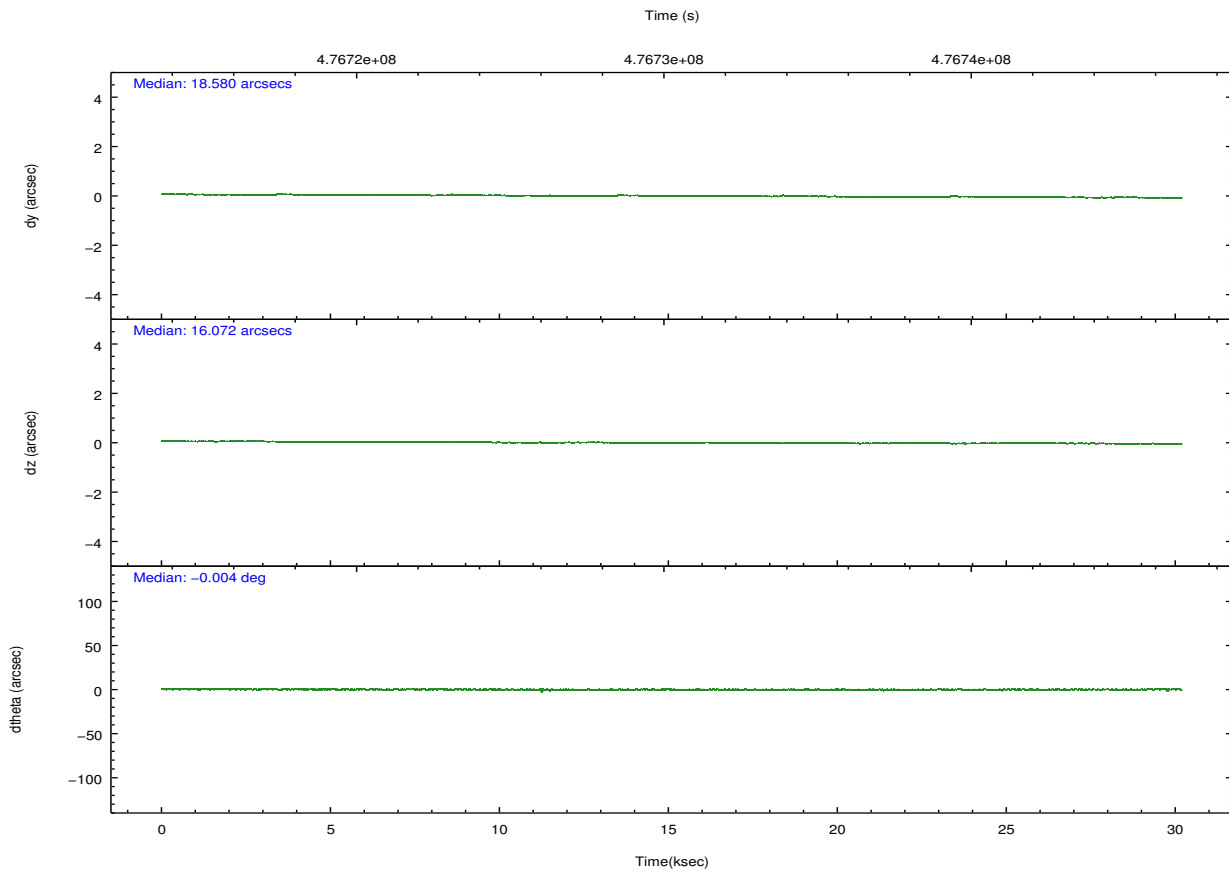
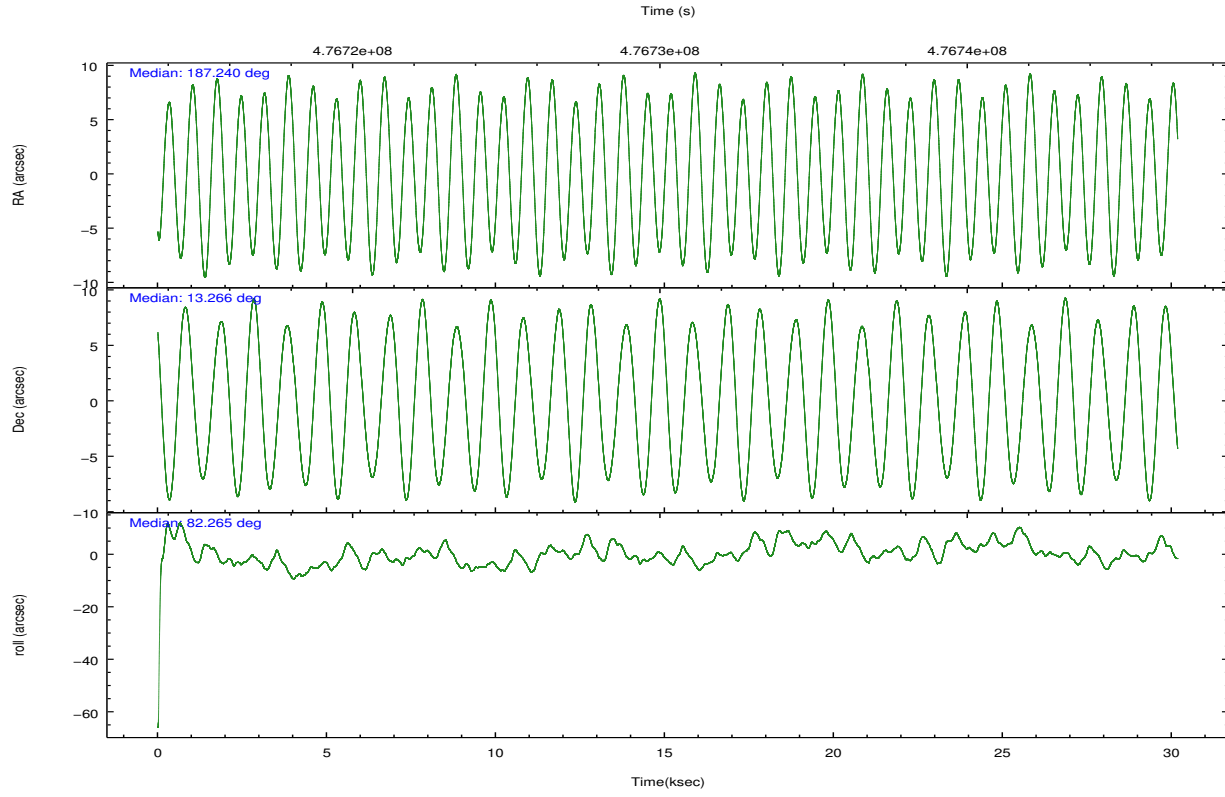
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	9511	41744	10812	10769	25174
	5%	13%	6%	4%	10%
grade 1 events	87	1055	73	251	211
	0%	0%	0%	0%	0%
grade 2 events	4329	48743	5052	21826	14937
	2%	15%	2%	9%	6%
grade 3 events	2116	7756	2244	9030	8827
	1%	2%	1%	3%	3%
grade 4 events	2114	5792	2060	8880	8205
	1%	1%	1%	3%	3%
grade 5 events	8278	20801	8337	22547	12124
	5%	6%	4%	9%	5%
grade 6 events	3842	73476	4744	53623	17308
	2%	22%	2%	23%	7%
grade 7 events	132691	121078	139715	102306	151412
	81%	37%	80%	44%	63%

## 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	187.251385	187.2403885250282	CCD I2 on	N	N
[deg] Pointing Dec	13.240974	13.26613006558235	CCD I3 on	Y	Y
[deg] Pointing Roll	82.108175	82.26729545487623	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)	476715358.184000	476714861.14587	CCD S5 on	N	N
Observation start date	2013-02-08T12:54:51	2013-02-08T12:47:41	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	476745358.184000	476746255.87257	On-chip summing requested	N	N
Observation end date	2013-02-08T21:14:51	2013-02-08T21:30:55	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



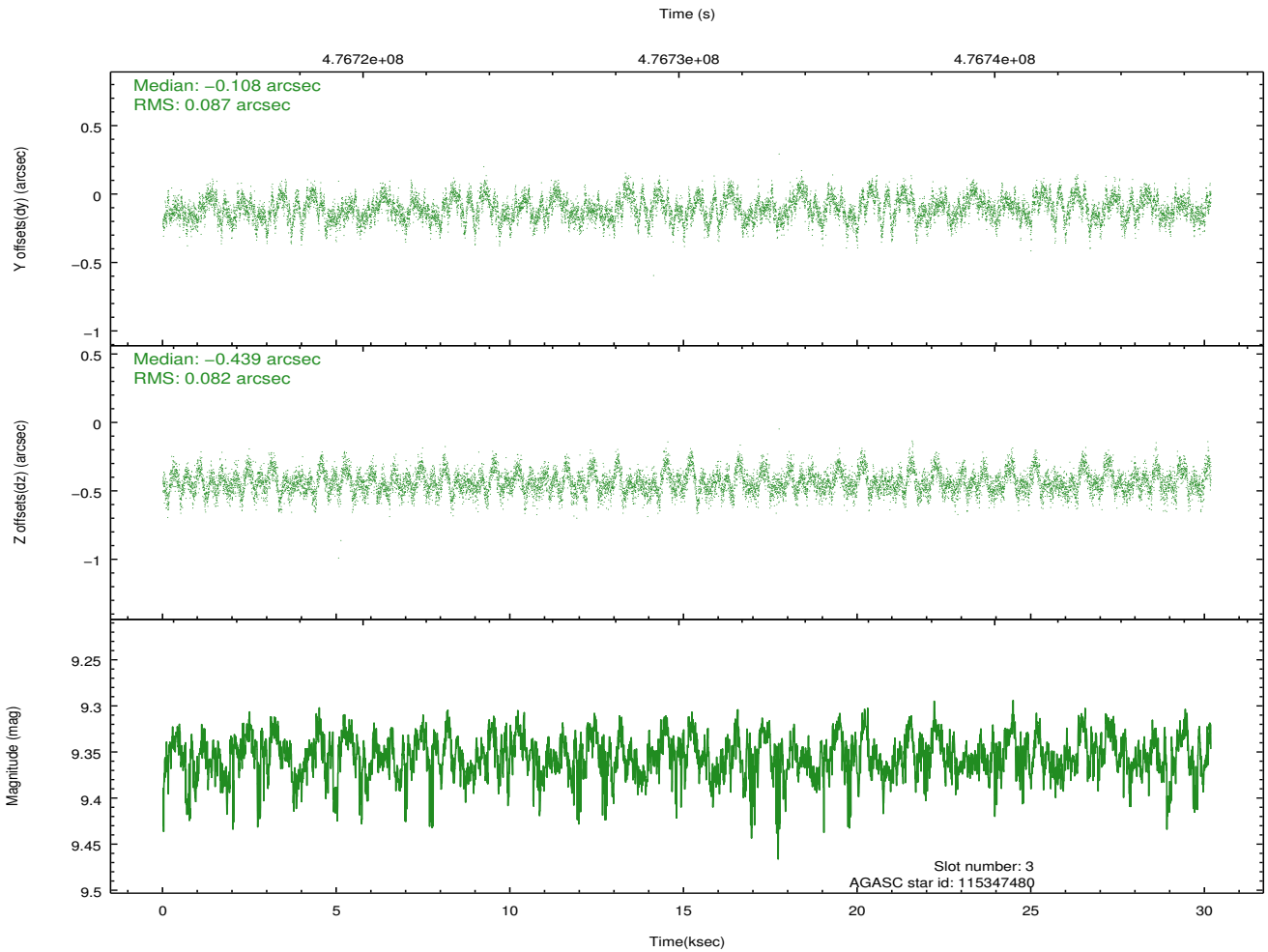
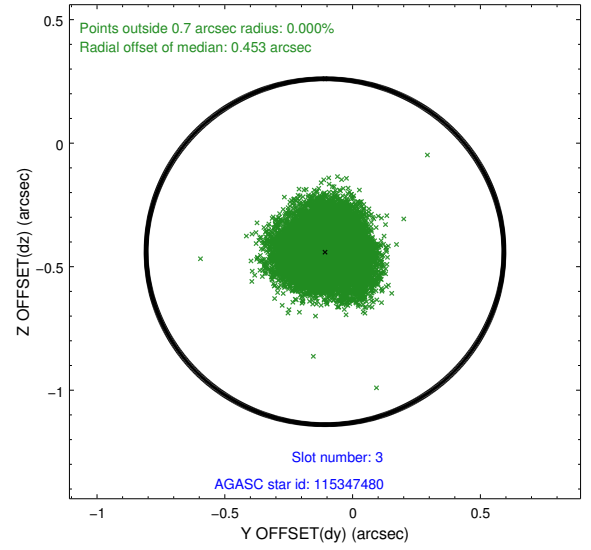
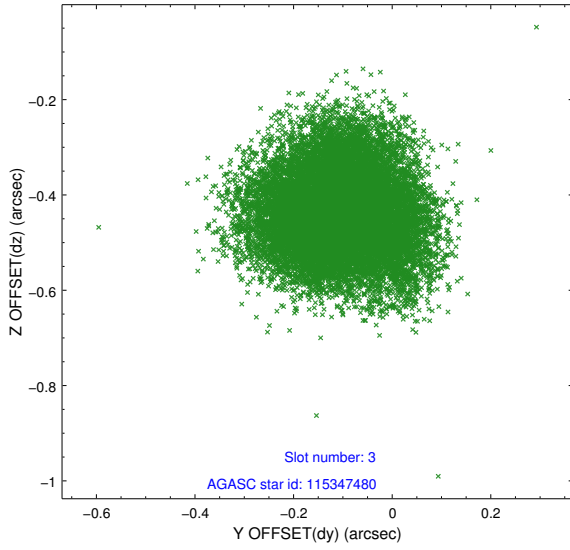


### Slot Statistics

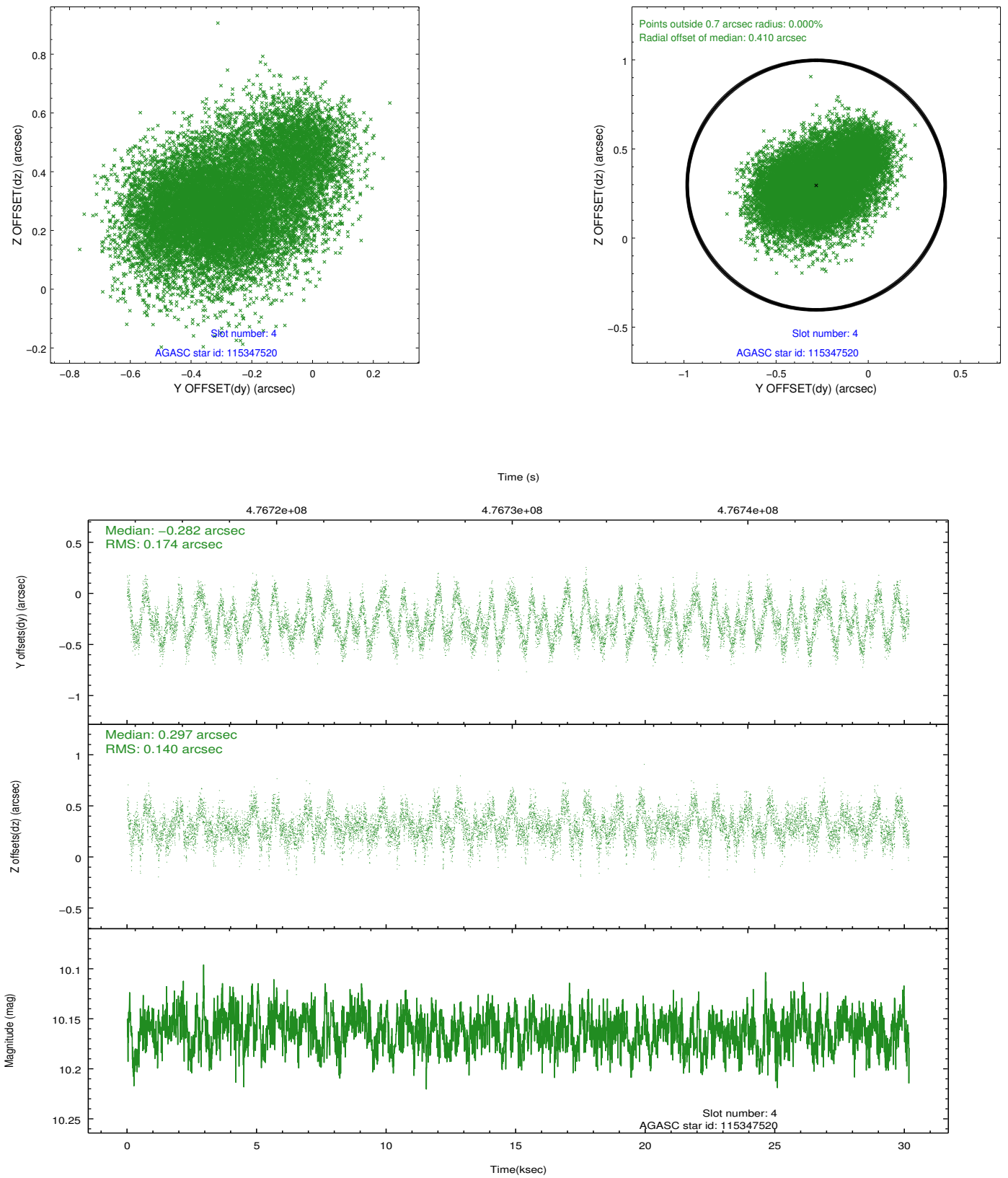
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.07	7361	-0.120	-0.015	0.007	0.011	0.000000	0.000000	-771.76	-1737.50
1	FID		ACIS-S-4	7.15	7360	0.285	0.062	0.005	0.010	0.000000	0.000000	2141.89	170.99
2	FID		ACIS-S-5	7.19	7361	-0.196	-0.038	0.007	0.011	0.000000	0.000000	-1824.59	164.63
3	GUIDE	used	115347480	9.35	14698	-0.108	-0.439	0.130	0.203	186.668576	13.310410	-30.47	2057.02
4	GUIDE	used	115347520	10.16	14694	-0.282	0.297	0.243	0.383	187.517505	12.810279	-1407.08	-1137.58
5	GUIDE	used	115348424	9.54	14710	-0.003	-0.263	0.132	0.203	187.199498	13.087929	-571.03	104.50
6	GUIDE	used	115348632	10.61	14694	0.336	0.416	0.243	0.422	187.536861	13.233195	110.62	-993.91
7	GUIDE	used	115349744	10.26	14594	0.046	-0.014	0.205	0.332	186.878186	12.752529	-1920.78	1056.78

## 2.4 Star Slots

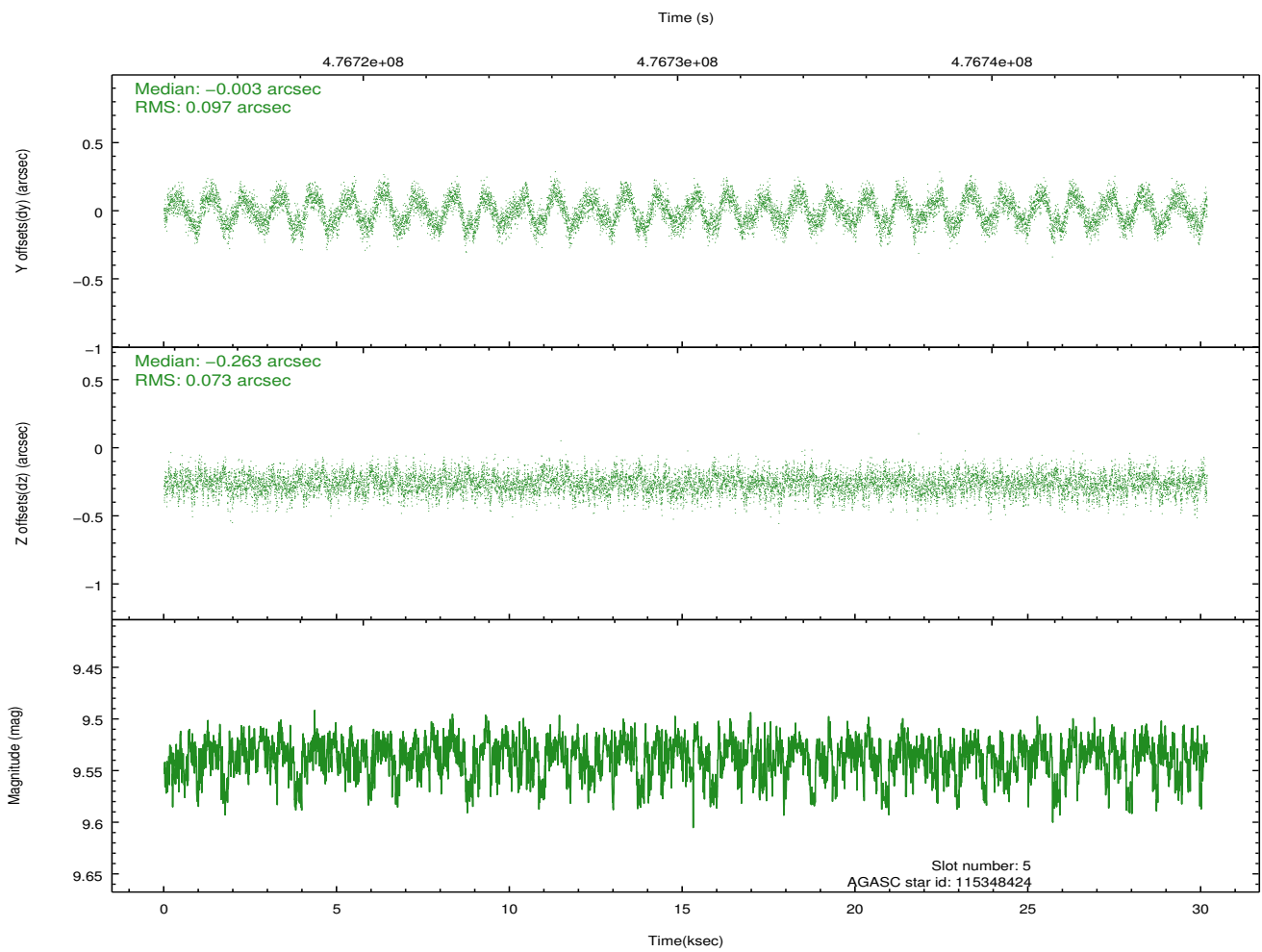
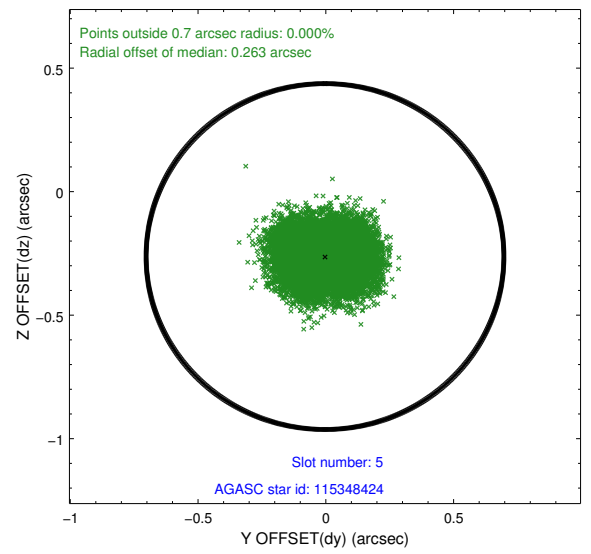
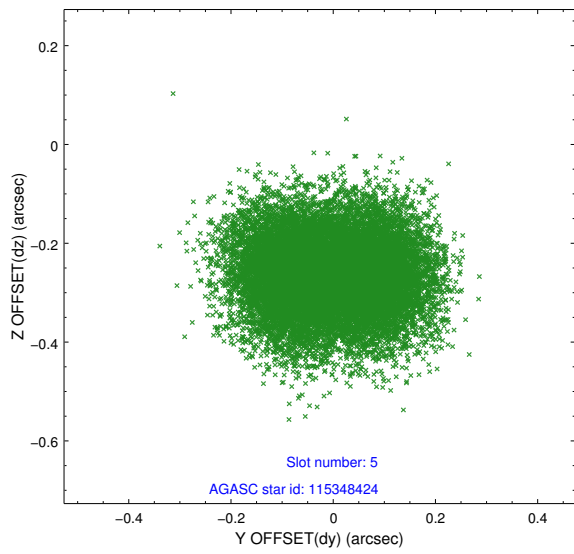
### 2.4.1 Slot 3



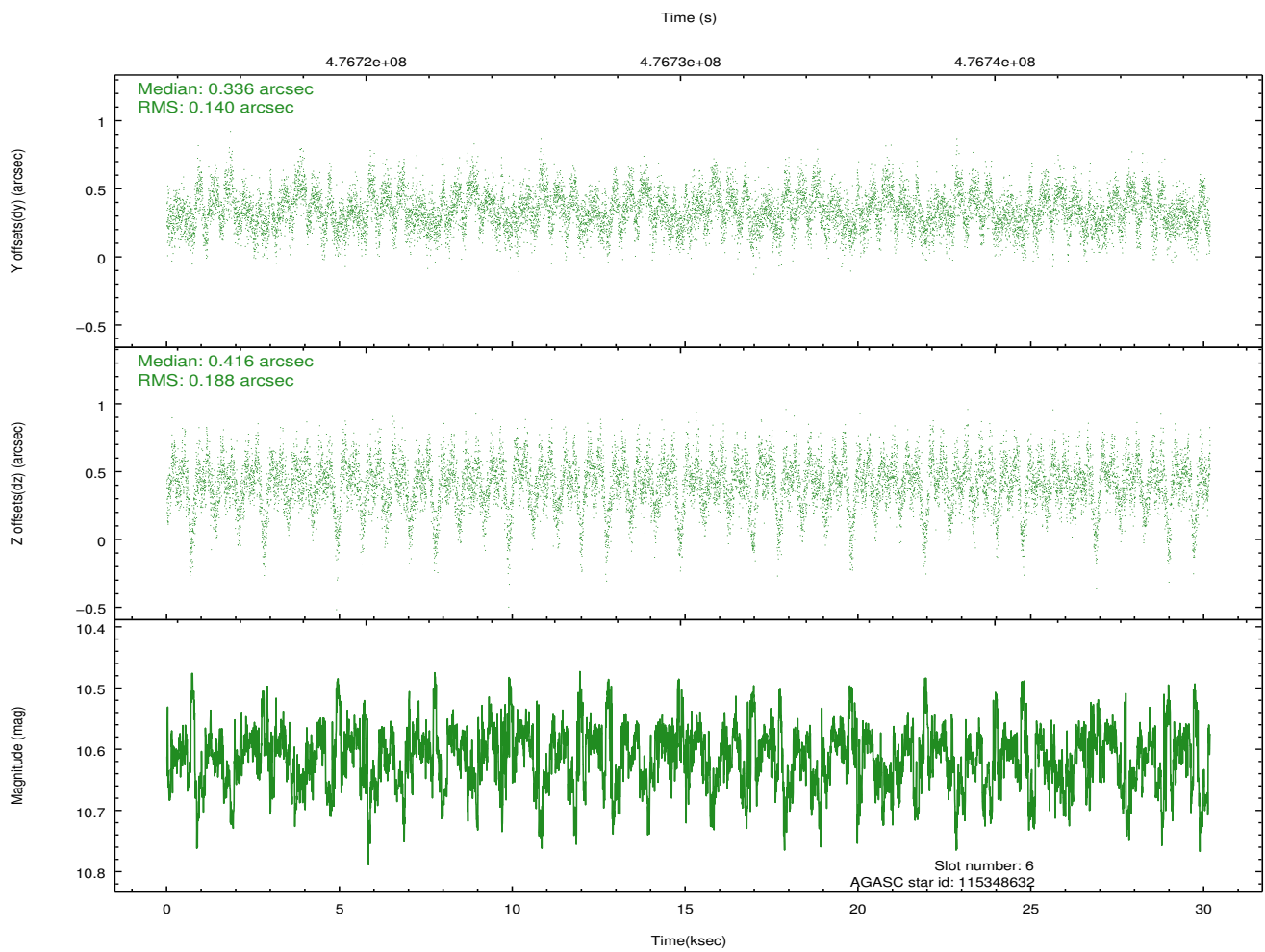
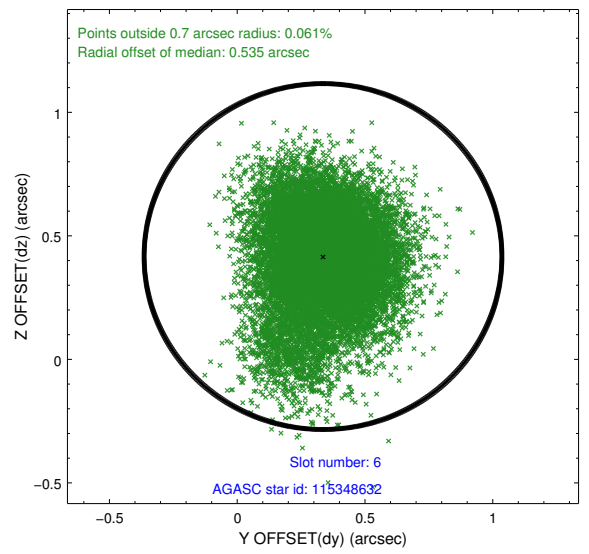
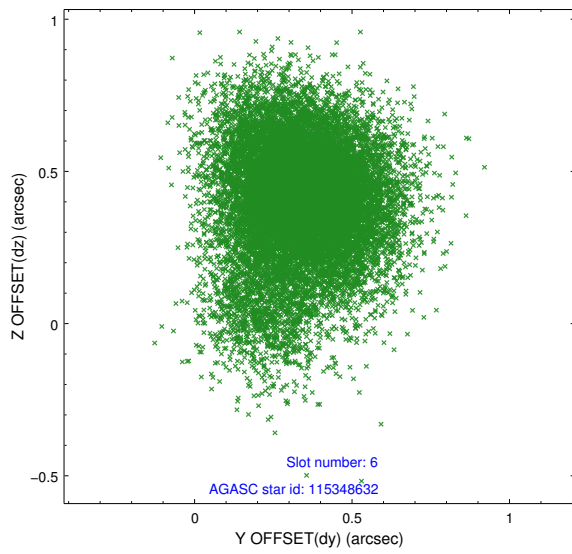
## 2.4.2 Slot 4



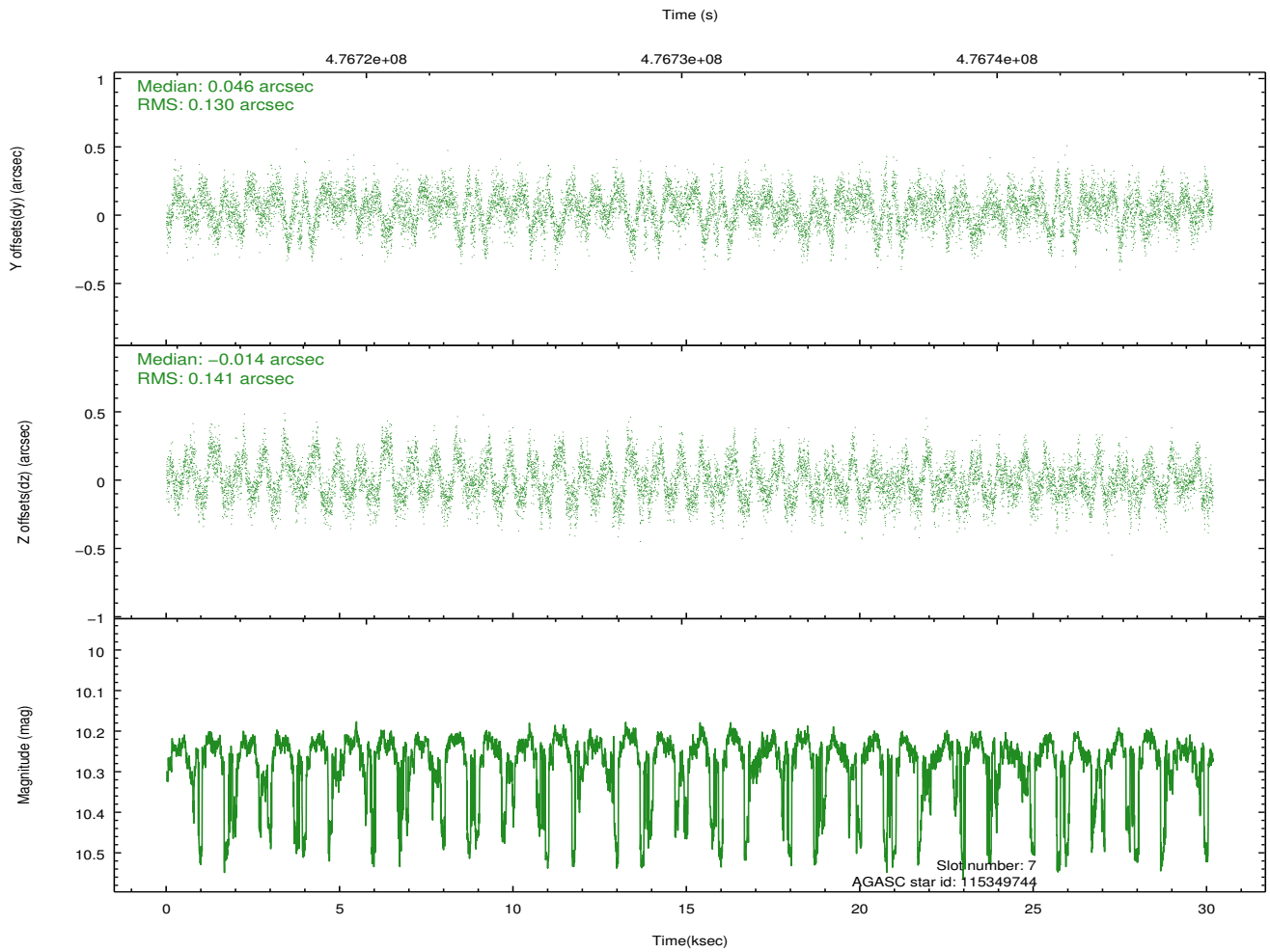
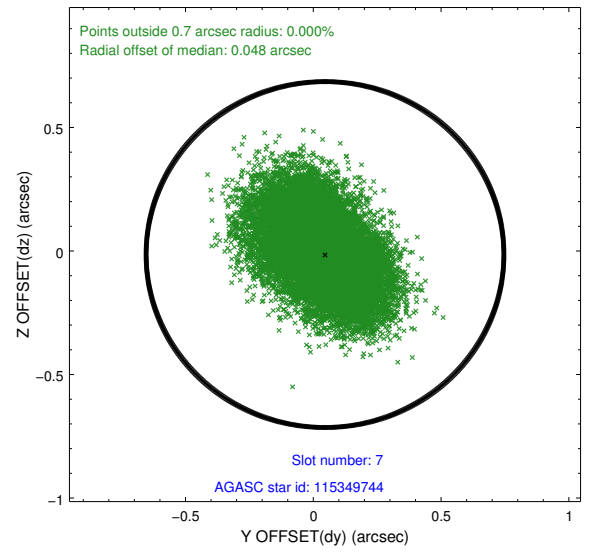
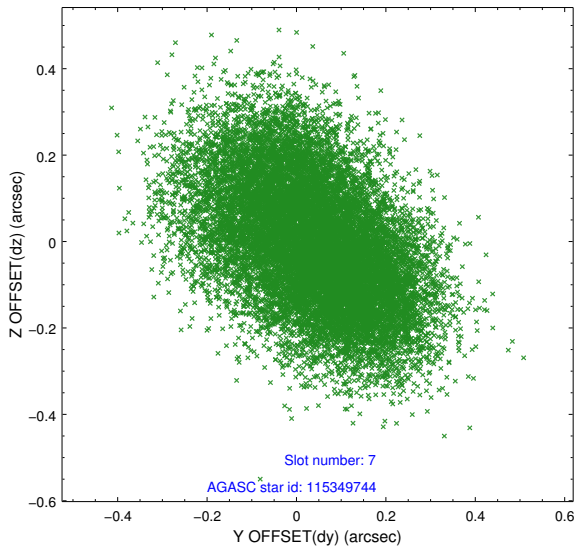
### 2.4.3 Slot 5



## 2.4.4 Slot 6

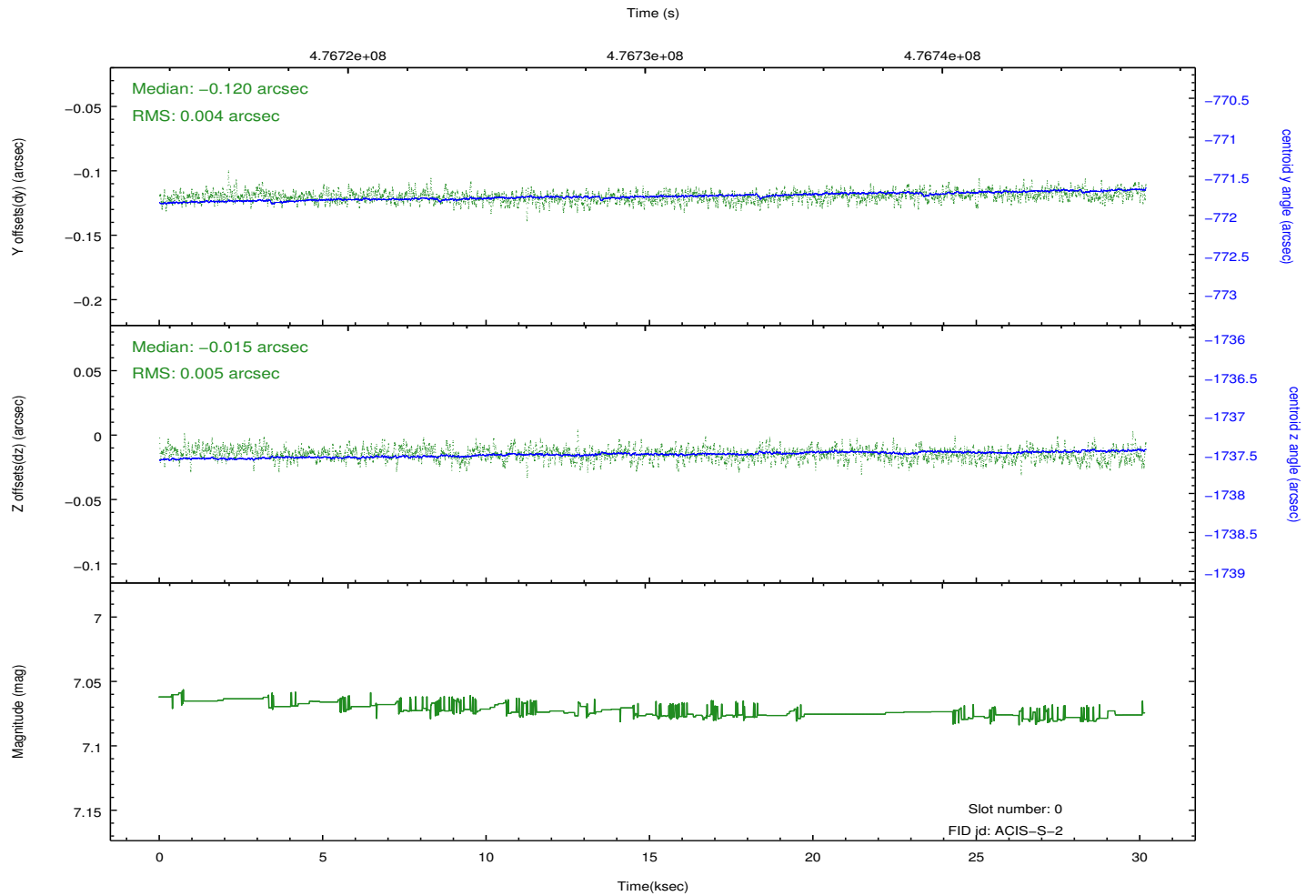
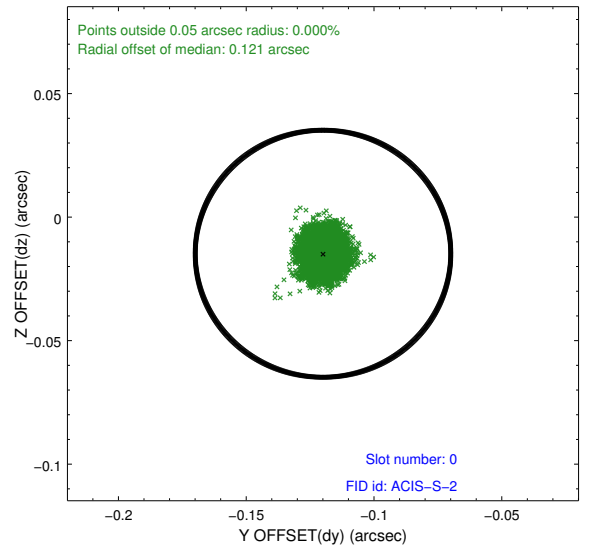
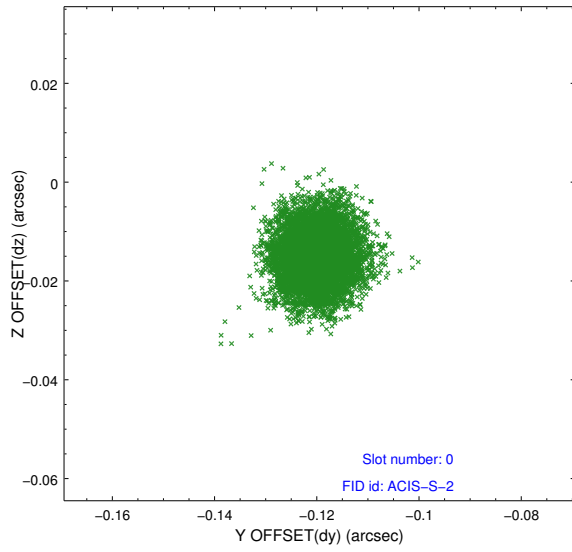


### 2.4.5 Slot 7

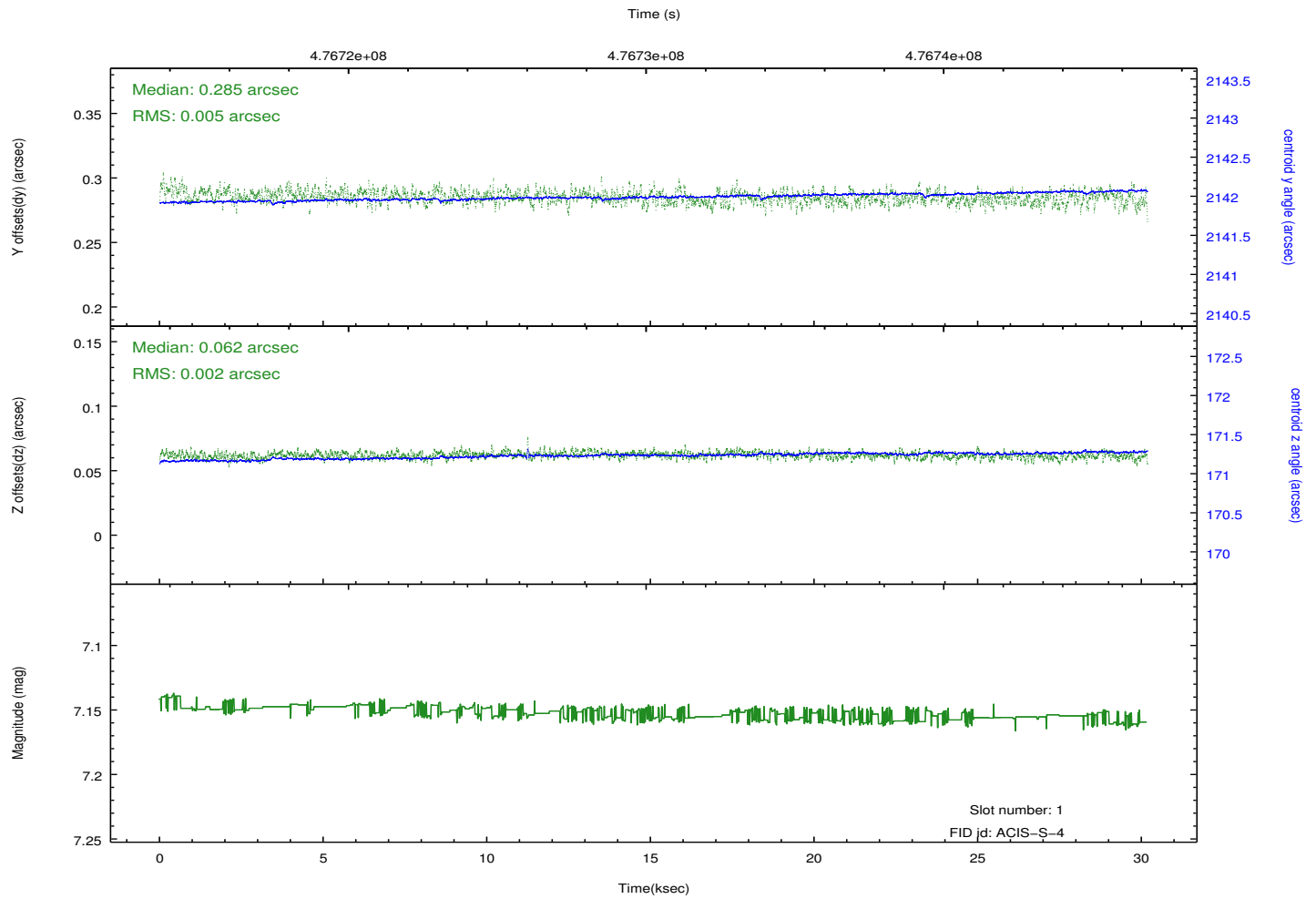
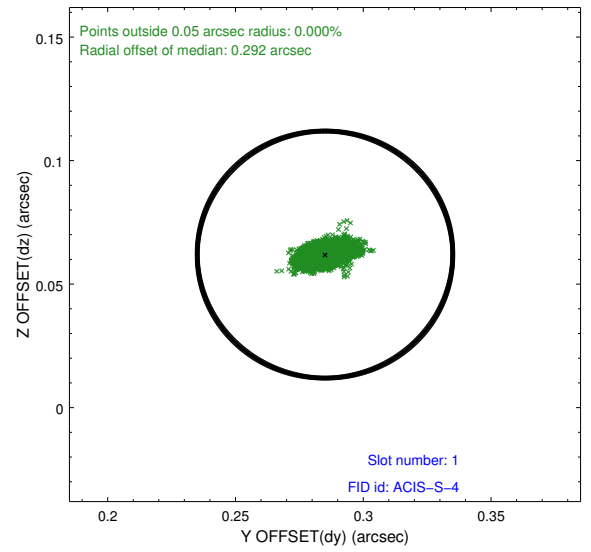
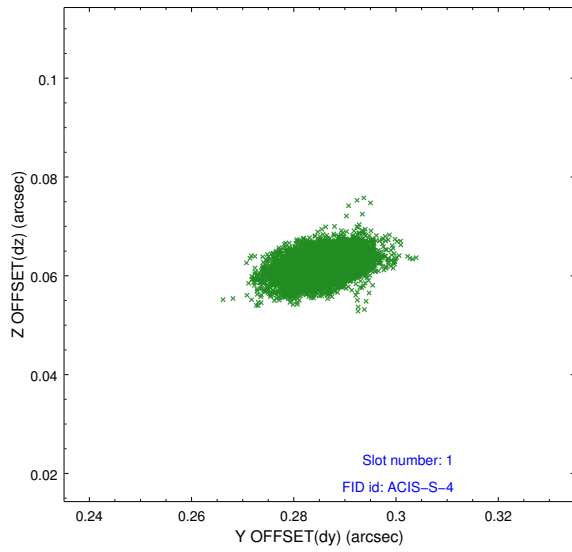


## 2.5 FID Slots

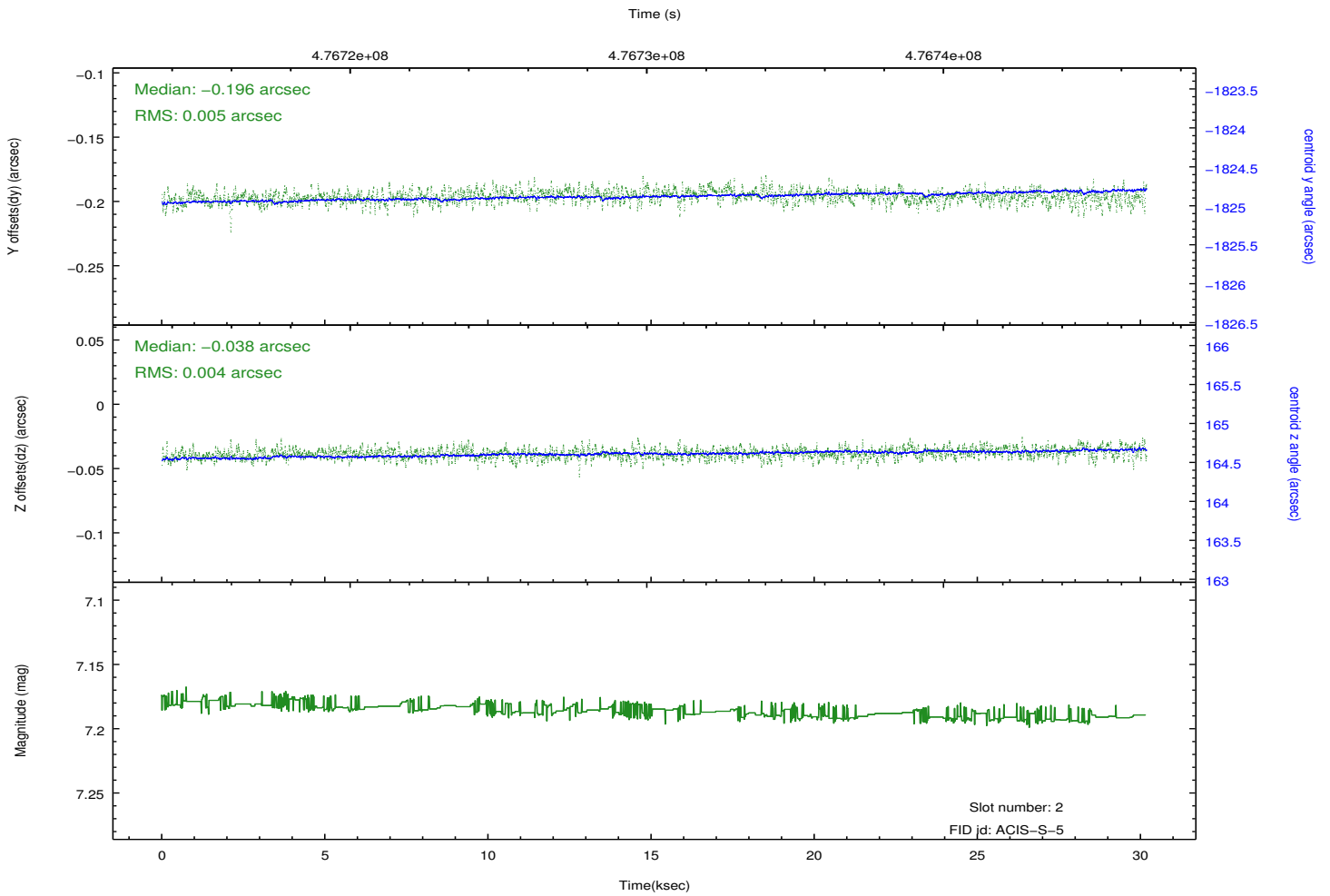
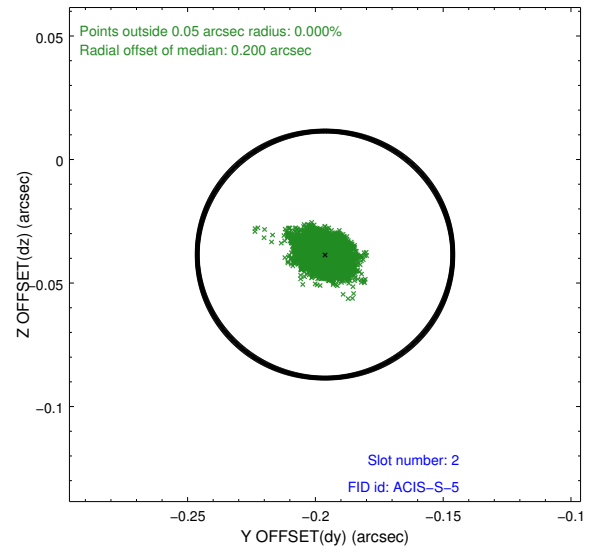
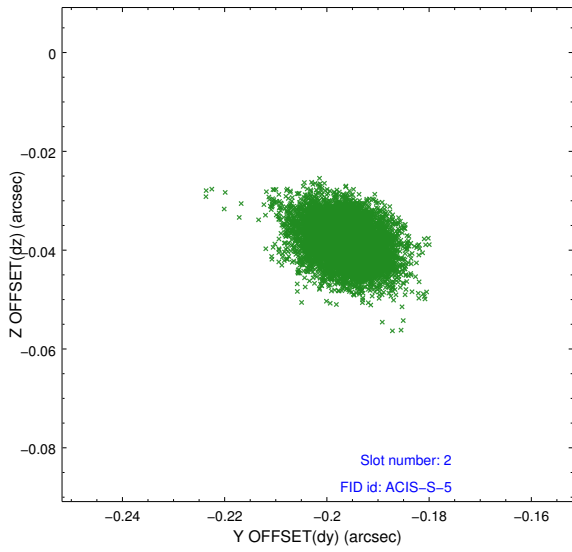
### 2.5.1 Slot 0



## 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	29.771243152499

## 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.