

# V&V Reference Report

## L2 ASCDS Version : 8.5

Observation 13604 - L2 Version 2  
Chandra X-Ray Center

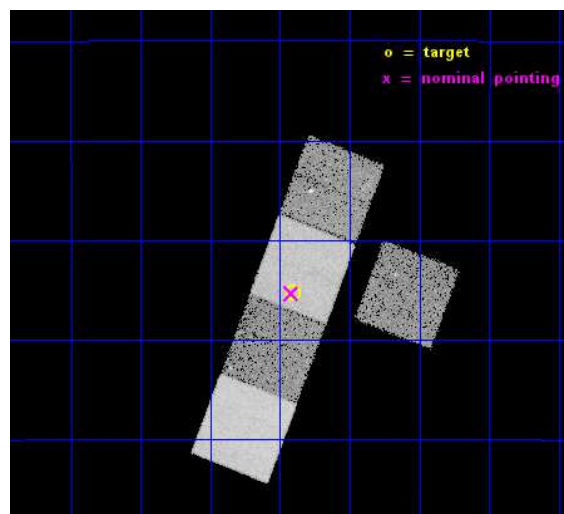
L2 Processing Date : Nov 29 2014

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# 1 Front

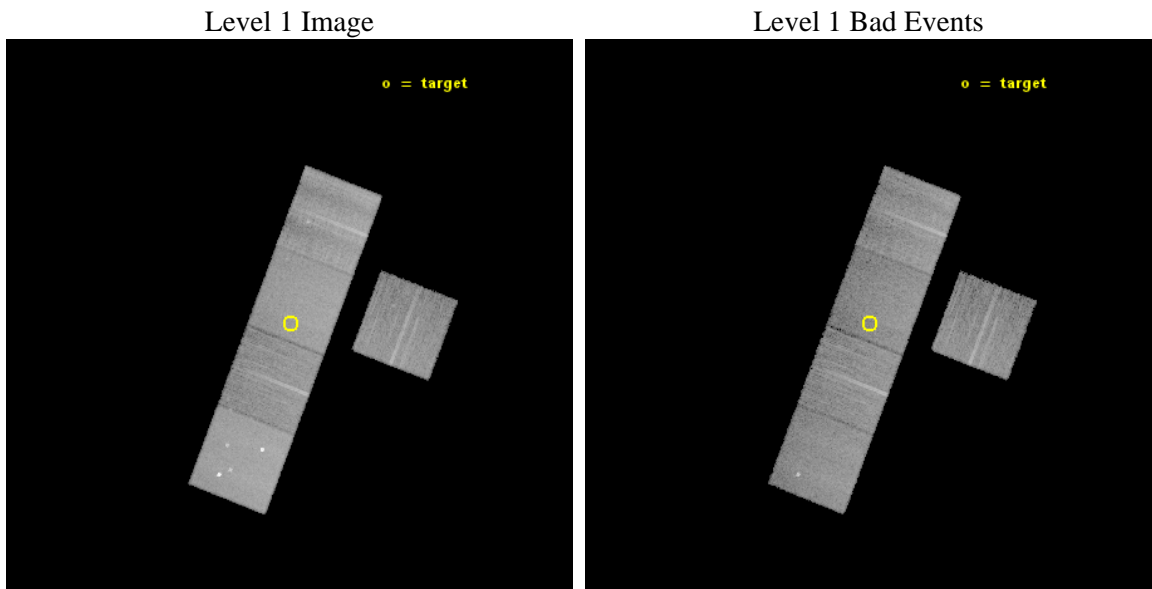
seq_num	200759	Sequence number
obs_id	13604	Observation id
title	Are Convective Dynamos Super-Saturated at High Rotation Velocities?	&#160
observer	Prof. Edo Berger	Principal investigator
object	GJ4281	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	337.226667	Observer's specified target RA [deg]
dec_targ	-13.421639	Observer's specified target Dec [deg]
ra_nom	337.22970886651	Nominal RA [deg]
dec_nom	-13.422245810037	Nominal Dec [deg]
roll_nom	290.96592133863	Nominal Roll [deg]
revision	2	Processing version of data
ontime	19864.800152779	Sum of GTIs [s]
lifetime	19605.251914529	Lifetime [s]
ontime3	19858.518222034	Sum of GTIs [s]
ontime5	19864.800152779	Sum of GTIs [s]
ontime6	19864.800152779	Sum of GTIs [s]
ontime7	19864.800152779	Sum of GTIs [s]
ontime8	19861.659182429	Sum of GTIs [s]
l2events	175447	Number of level 2 events



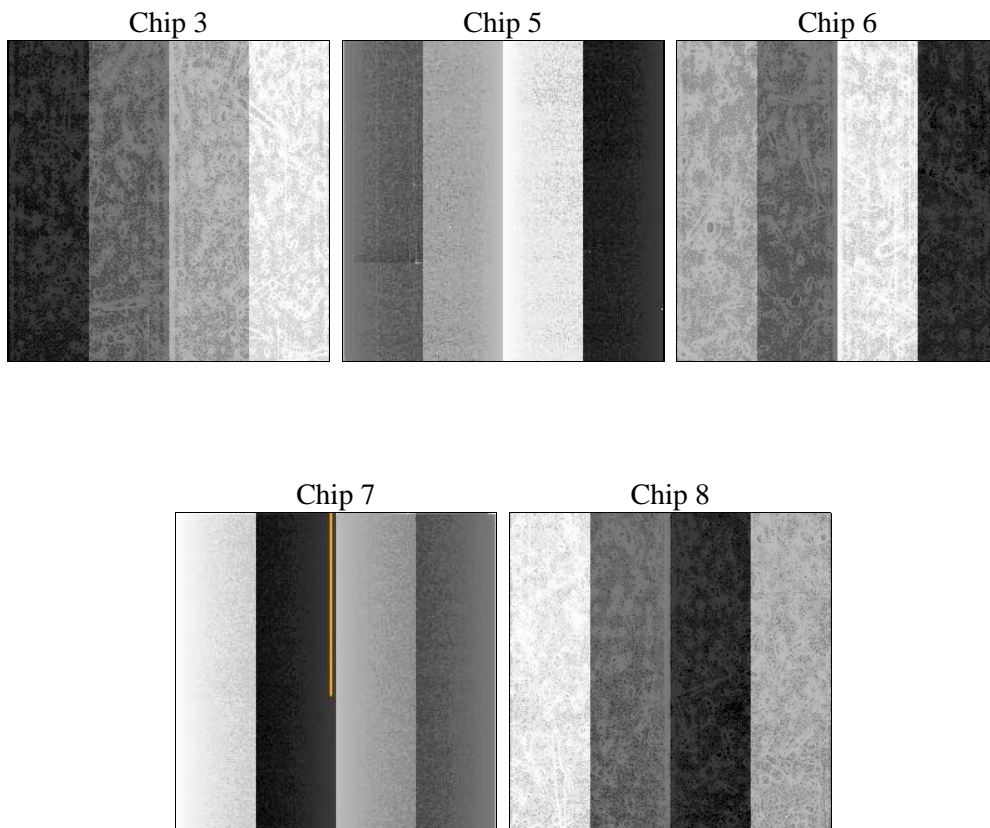
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	19800.757000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	19864.800152779	Sum of GTIs [s]
caldbver	4.6.4	&#160	ontime3	19858.518222034	Sum of GTIs [s]
date	2014-11-30T02:39:33	Date and time of file creation	ontime5	19864.800152779	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	19864.800152779	Sum of GTIs [s]
			ontime7	19864.800152779	Sum of GTIs [s]
			ontime8	19861.659182429	Sum of GTIs [s]
			l1events	668389	Number of level 1 events

### 2.1.4 Events

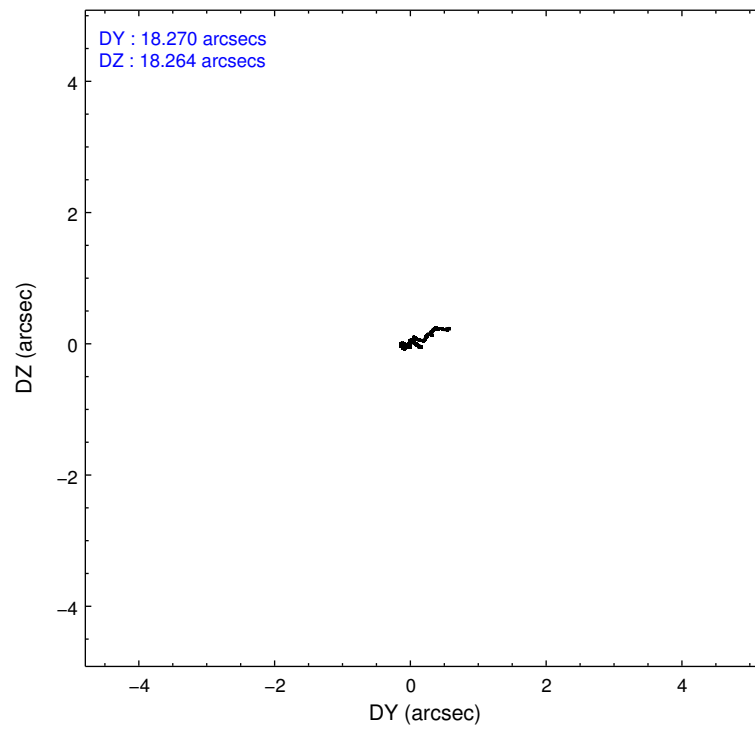
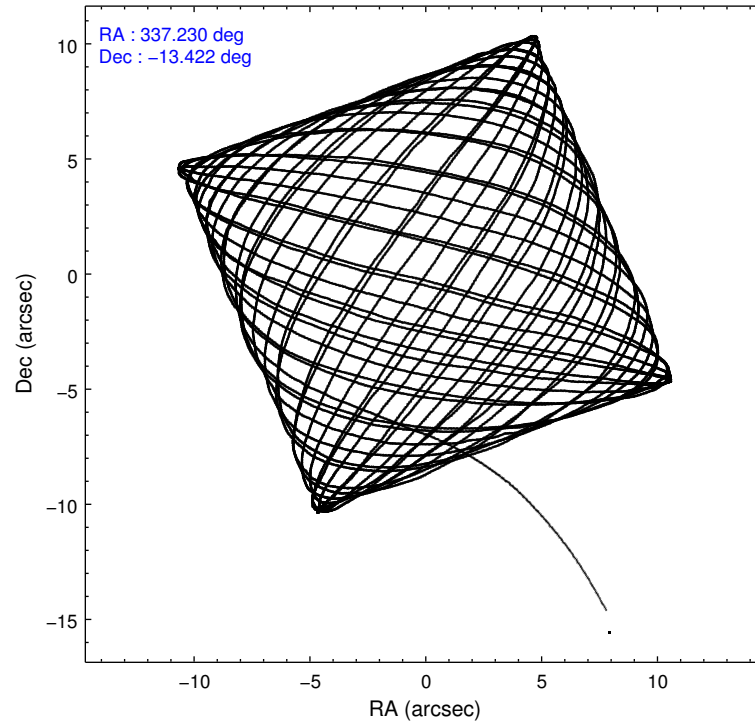
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	98310	180897	105395	141445	142342
rejected events	86621	89099	92513	79574	103880
rejected %	88%	49%	87%	56%	72%

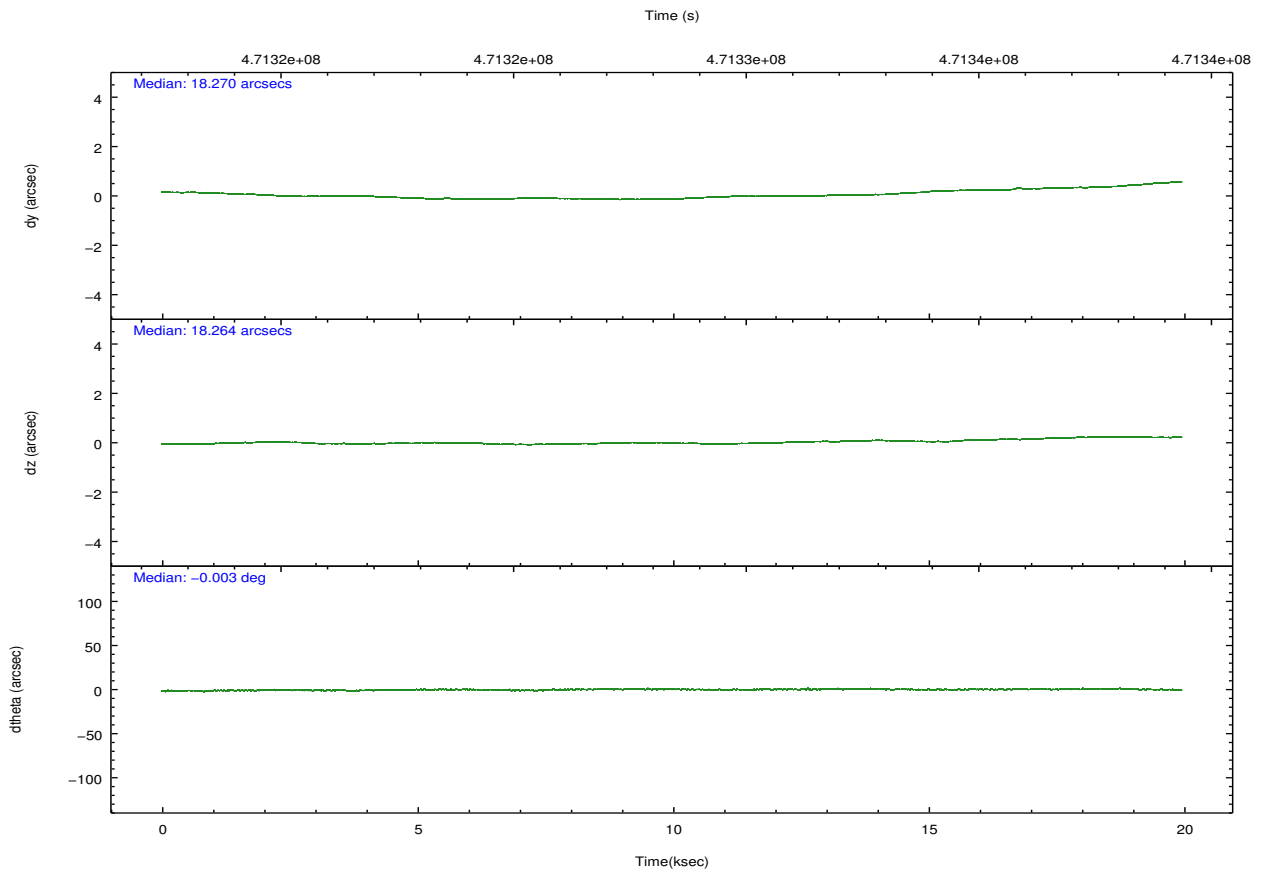
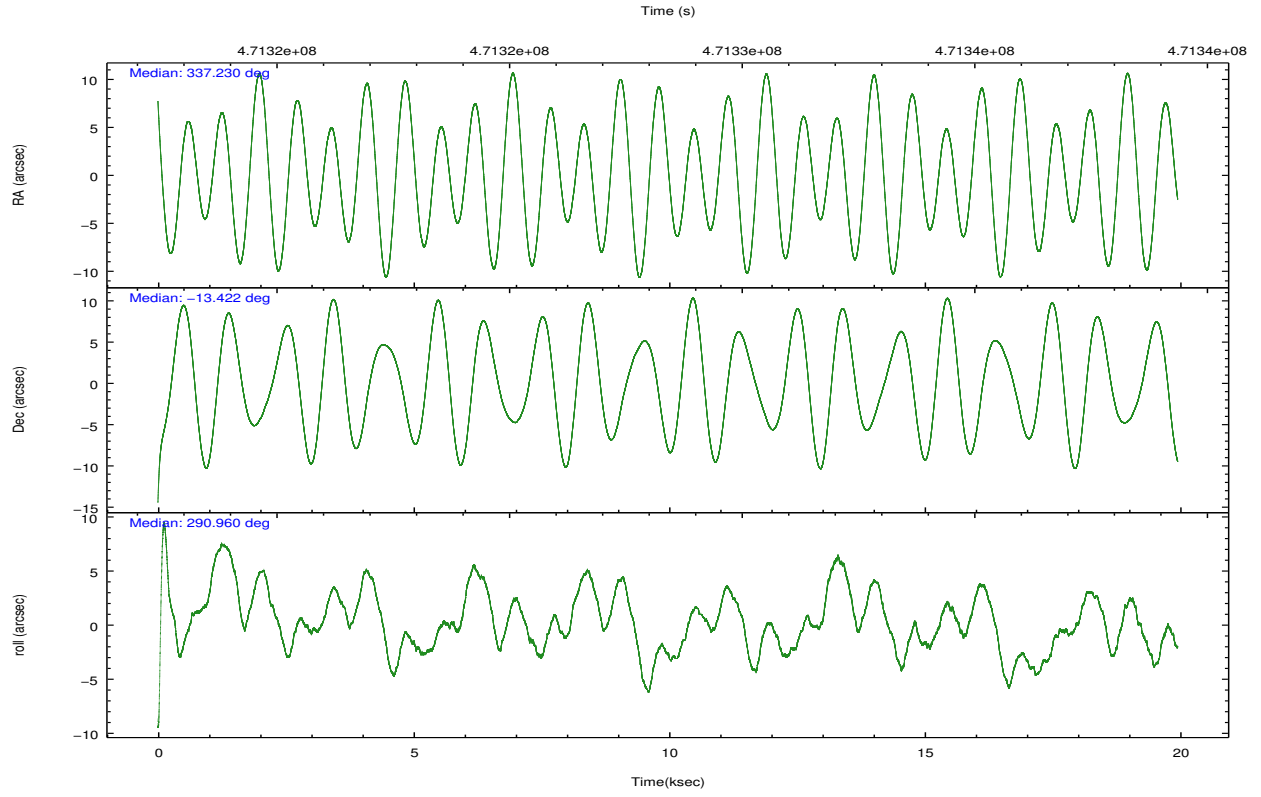
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	4225	13778	4519	5618	11749
	4%	7%	4%	3%	8%
grade 1 events	49	1307	59	184	127
	0%	0%	0%	0%	0%
grade 2 events	2631	27023	2850	12532	8819
	2%	14%	2%	8%	6%
grade 3 events	1207	3186	1291	5447	4187
	1%	1%	1%	3%	2%
grade 4 events	1283	3097	1323	5229	3770
	1%	1%	1%	3%	2%
grade 5 events	5339	13346	5470	14722	7981
	5%	7%	5%	10%	5%
grade 6 events	2345	44726	2900	33060	9943
	2%	24%	2%	23%	6%
grade 7 events	81231	74434	86983	64653	95766
	82%	41%	82%	45%	67%

## 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	337.207645	337.2297088665086	CCD I2 on	N	N
[deg] Pointing Dec	-13.405310	-13.4222458100366	CCD I3 on	O1	Y
[deg] Pointing Roll	290.804190	290.9659213386255	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)	471318568.184000	471316823.40483	CCD S5 on	N	N
Observation start date	2012-12-08T01:48:21	2012-12-08T01:20:23	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	471338369.184000	471338594.9185	On-chip summing requested	N	N
Observation end date	2012-12-08T07:18:22	2012-12-08T07:23:14	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect





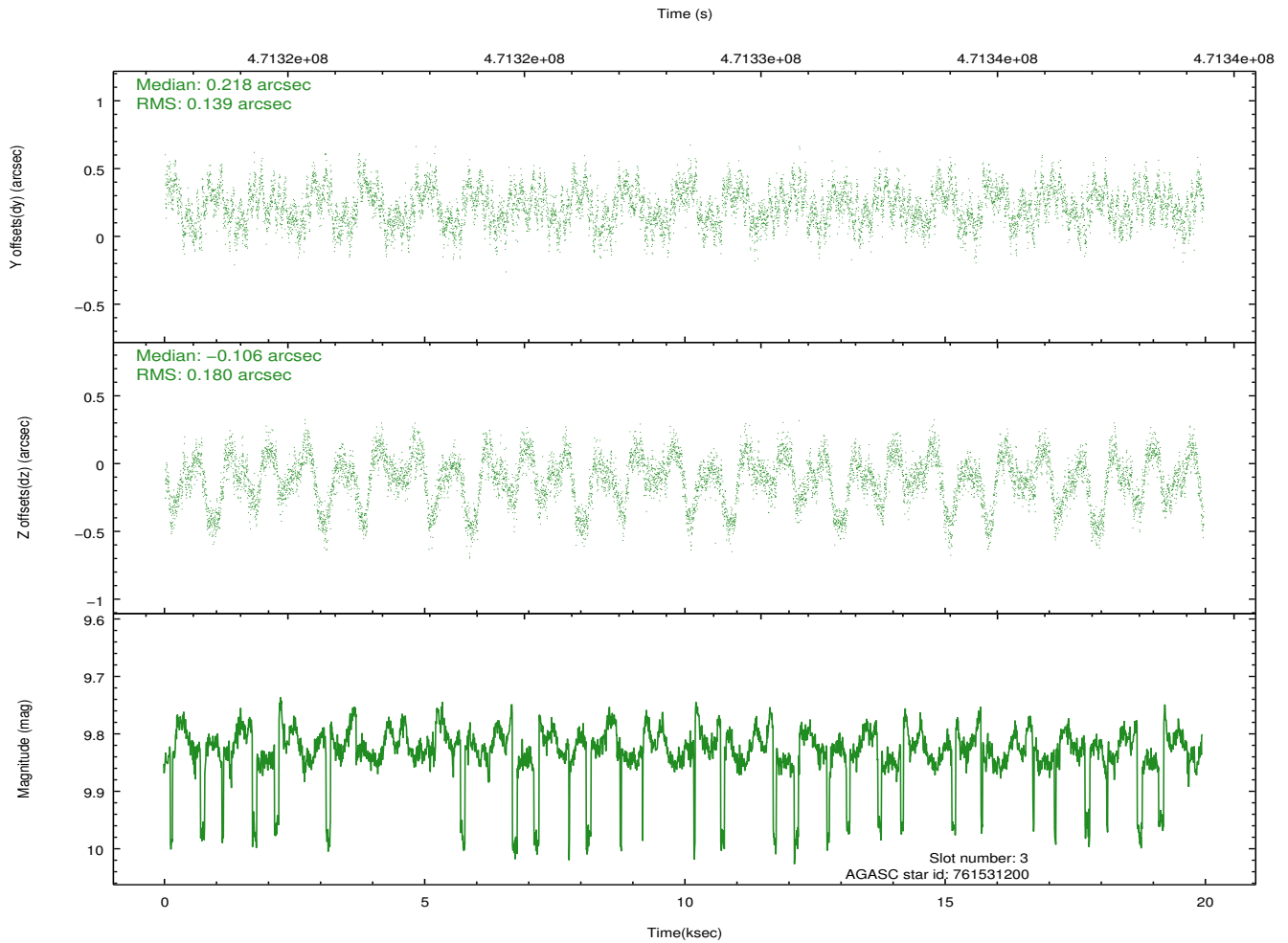
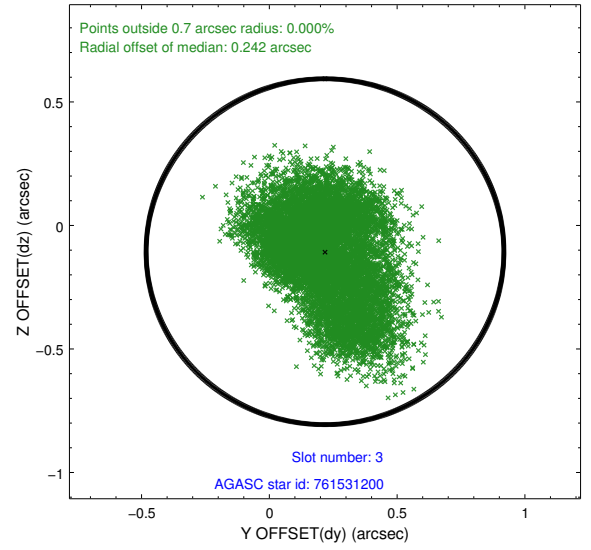
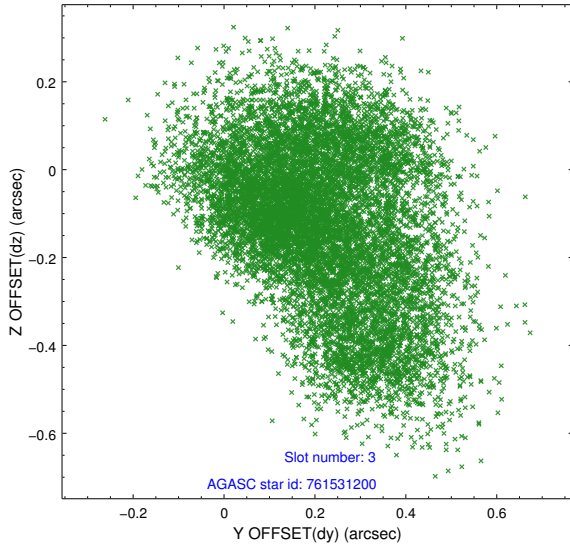
### Slot Statistics

slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	6.94	4867	-0.076	-0.035	0.008	0.014	0.000000	0.000000	-771.51	-1739.73
1	FID		ACIS-S-4	7.02	4866	0.215	0.046	0.010	0.021	0.000000	0.000000	2142.01	168.58
2	FID		ACIS-S-5	7.05	4866	-0.171	-0.003	0.008	0.014	0.000000	0.000000	-1824.16	162.49
3	GUIDE	used	761531200	9.83	9654	0.218	-0.106	0.244	0.388	336.830165	-14.153504	2052.15	-2189.39
4	GUIDE	used	761533808	9.16	9728	0.157	0.354	0.112	0.186	336.896614	-13.060712	-1545.69	-579.80
5	GUIDE	used	762447216	9.30	9717	-0.168	-0.078	0.135	0.205	337.631232	-13.864030	2070.76	797.12
6	GUIDE	used	762453816	8.79	9707	-0.222	0.005	0.104	0.182	337.899554	-13.812415	2232.83	1739.48
7	GUIDE	used	762455992	8.84	9730	0.021	-0.177	0.107	0.174	337.267558	-13.700495	1068.51	-181.42

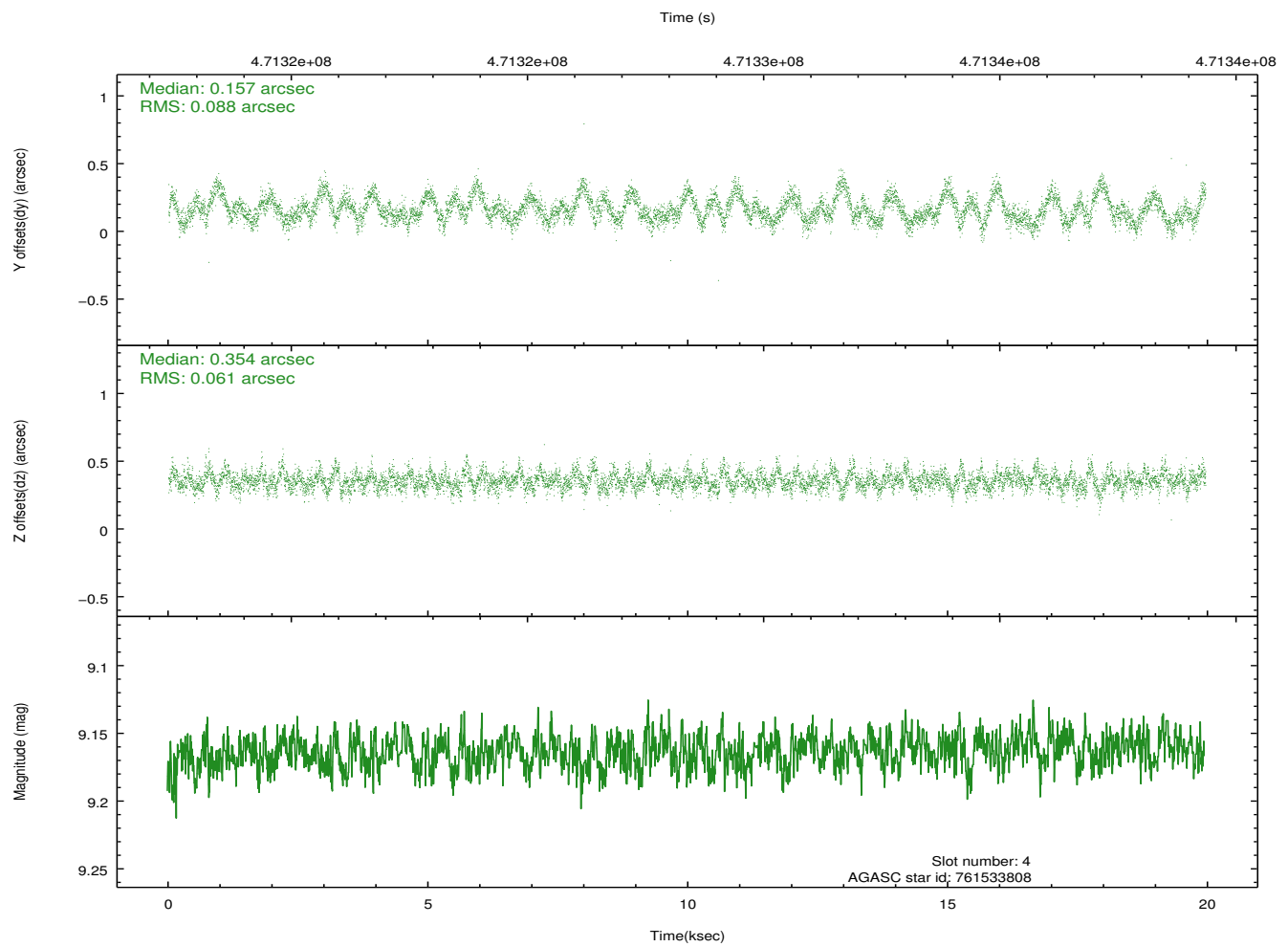
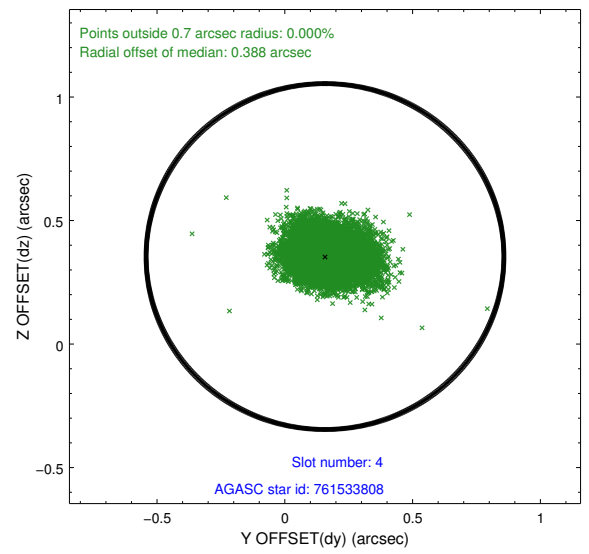
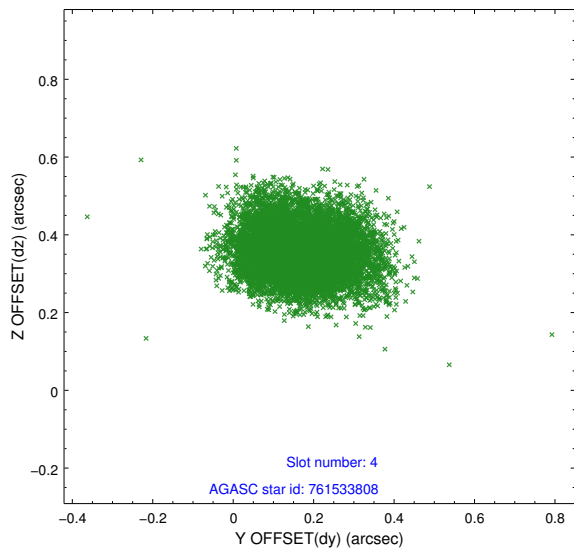
∞

## 2.4 Star Slots

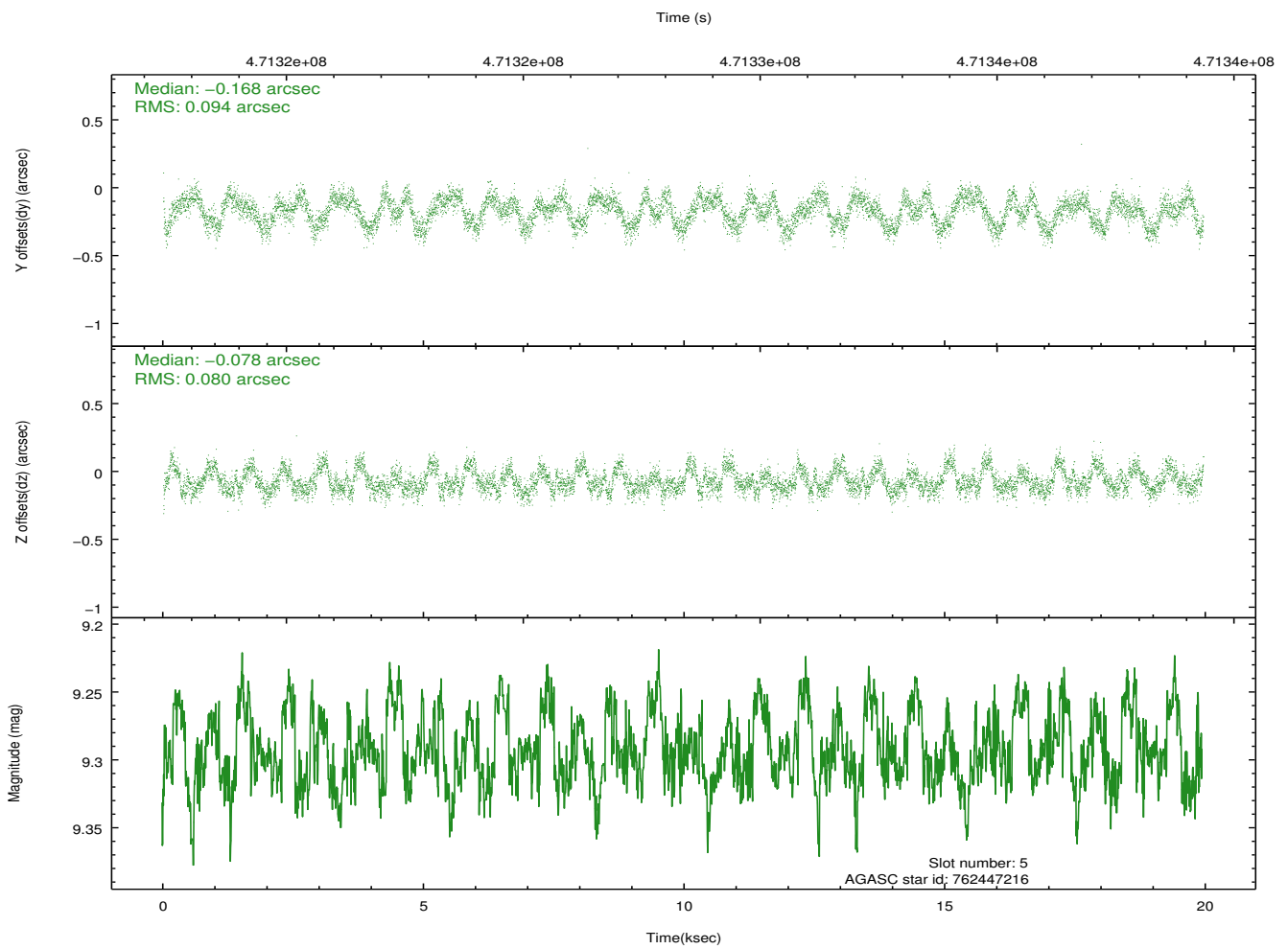
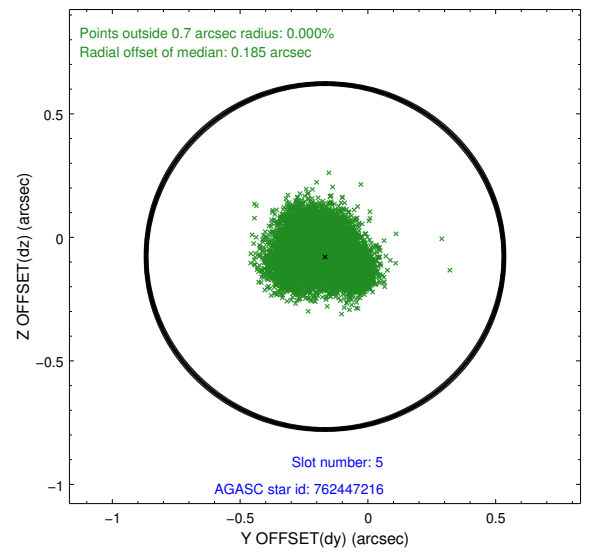
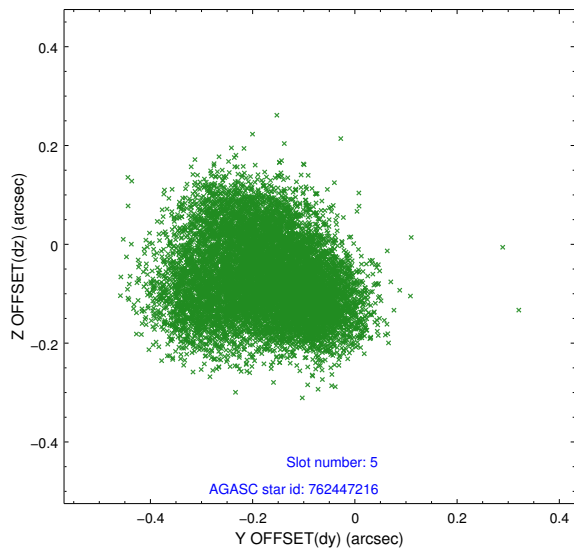
### 2.4.1 Slot 3



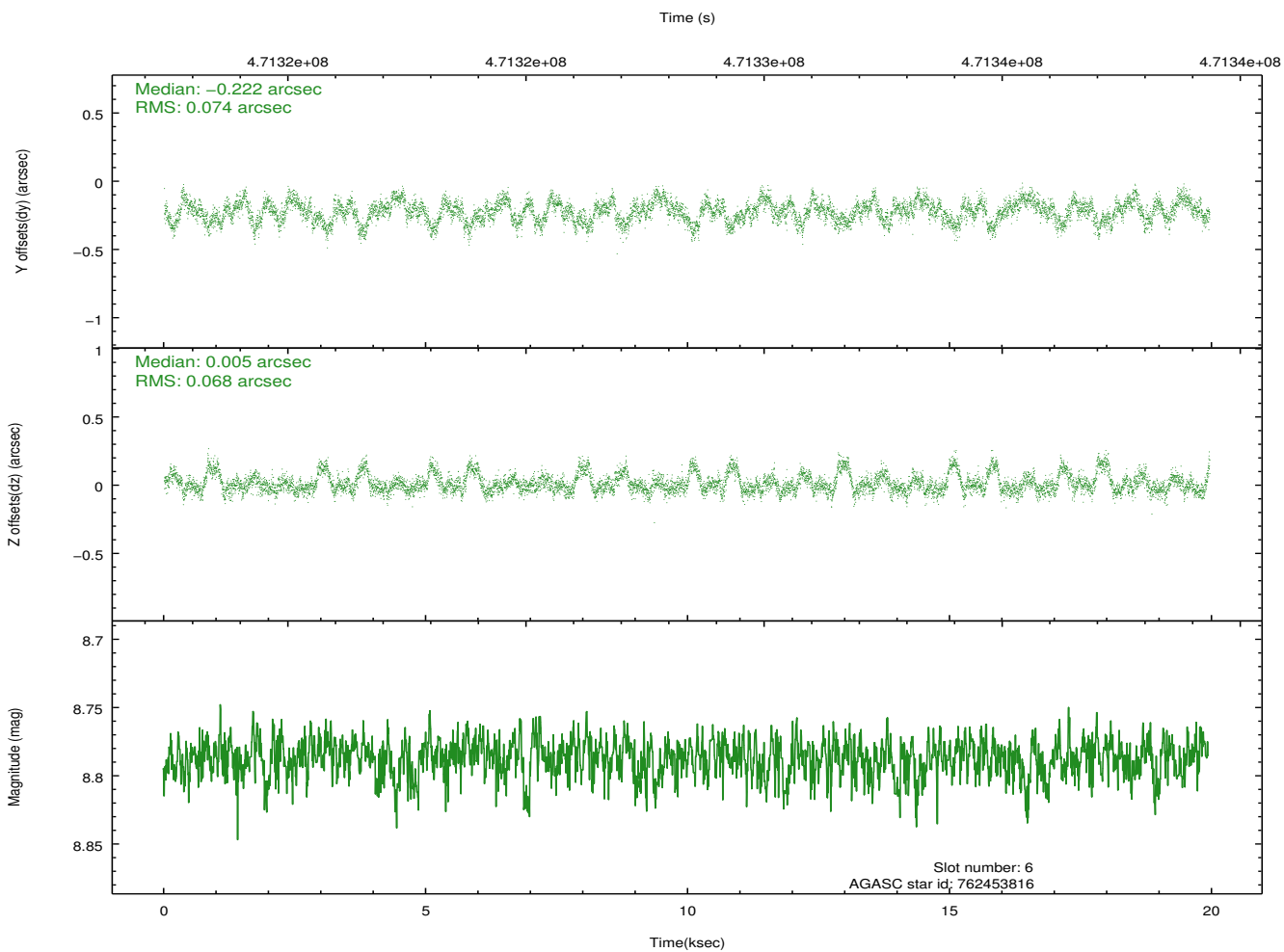
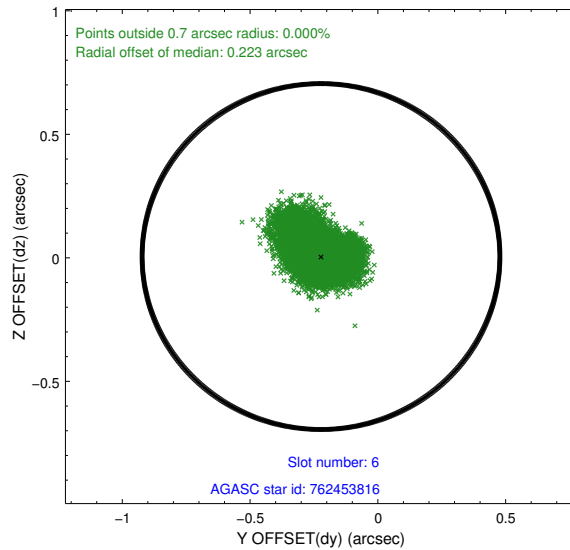
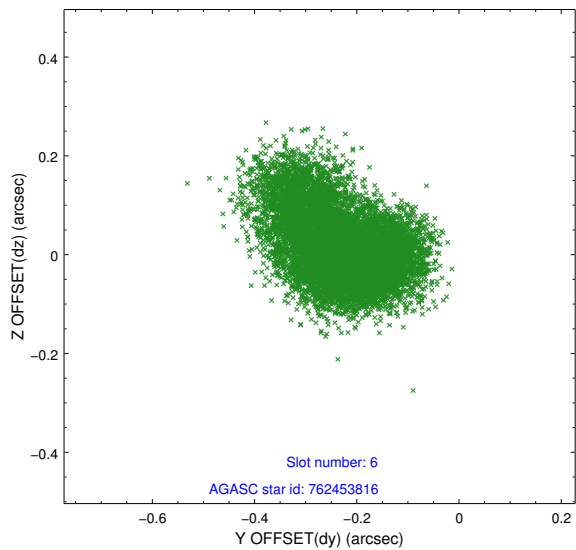
## 2.4.2 Slot 4



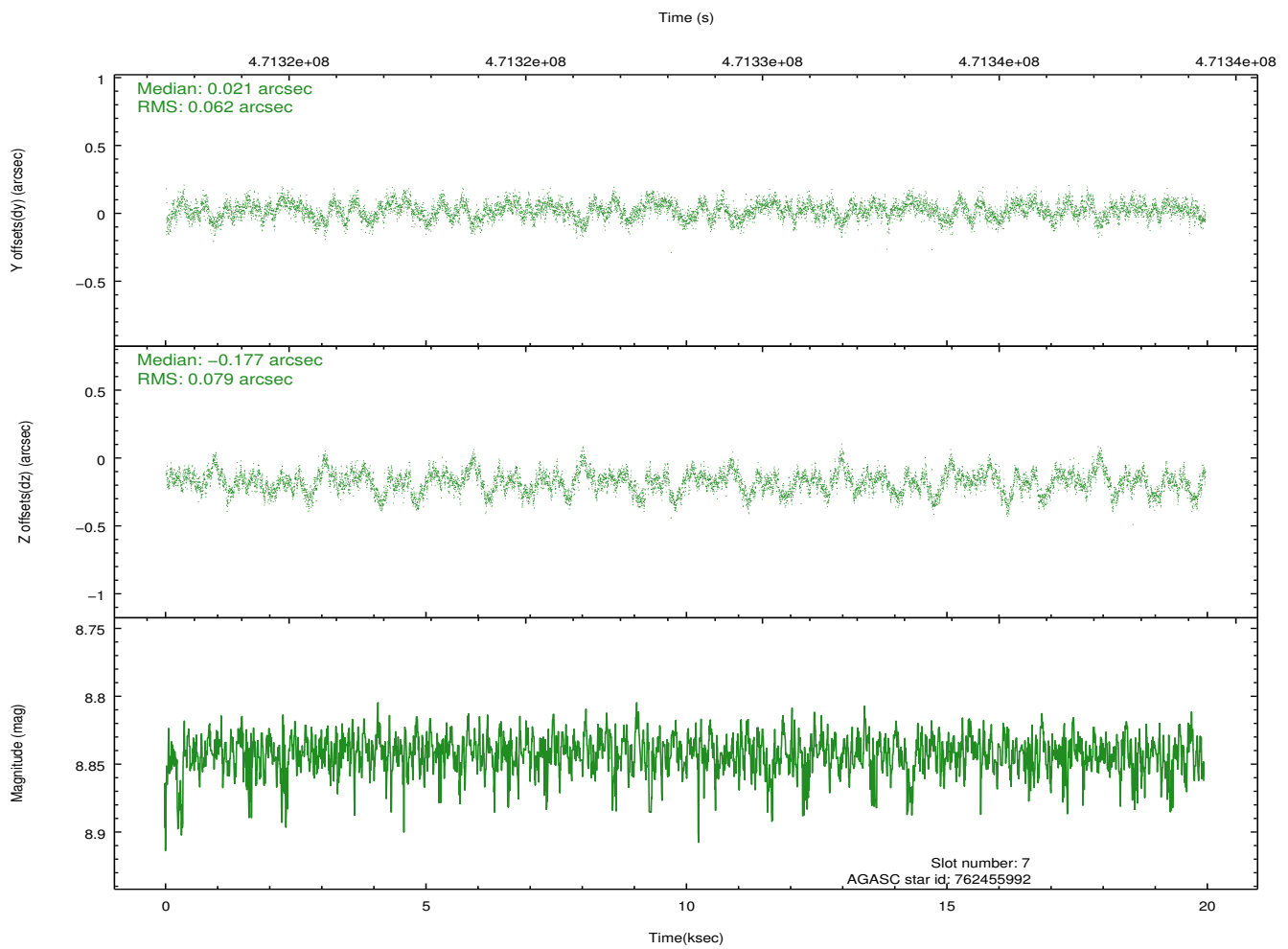
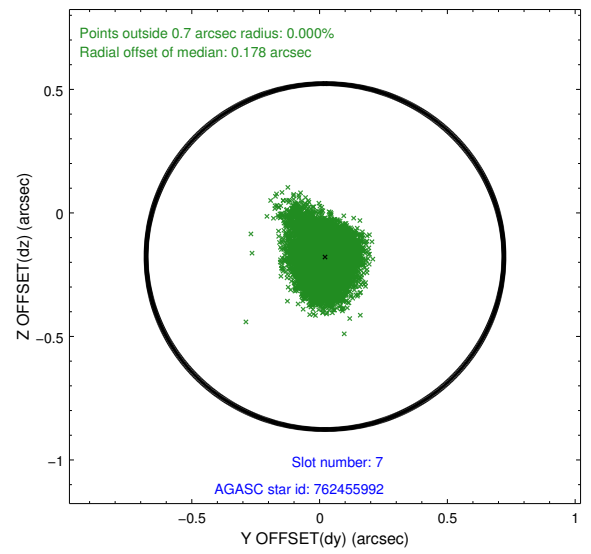
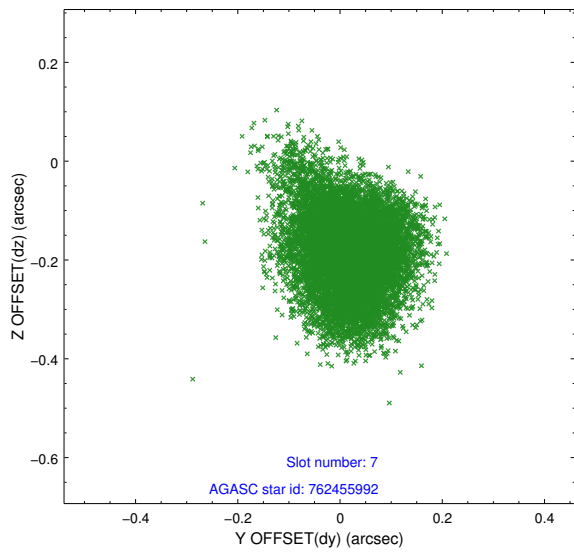
### 2.4.3 Slot 5



## 2.4.4 Slot 6

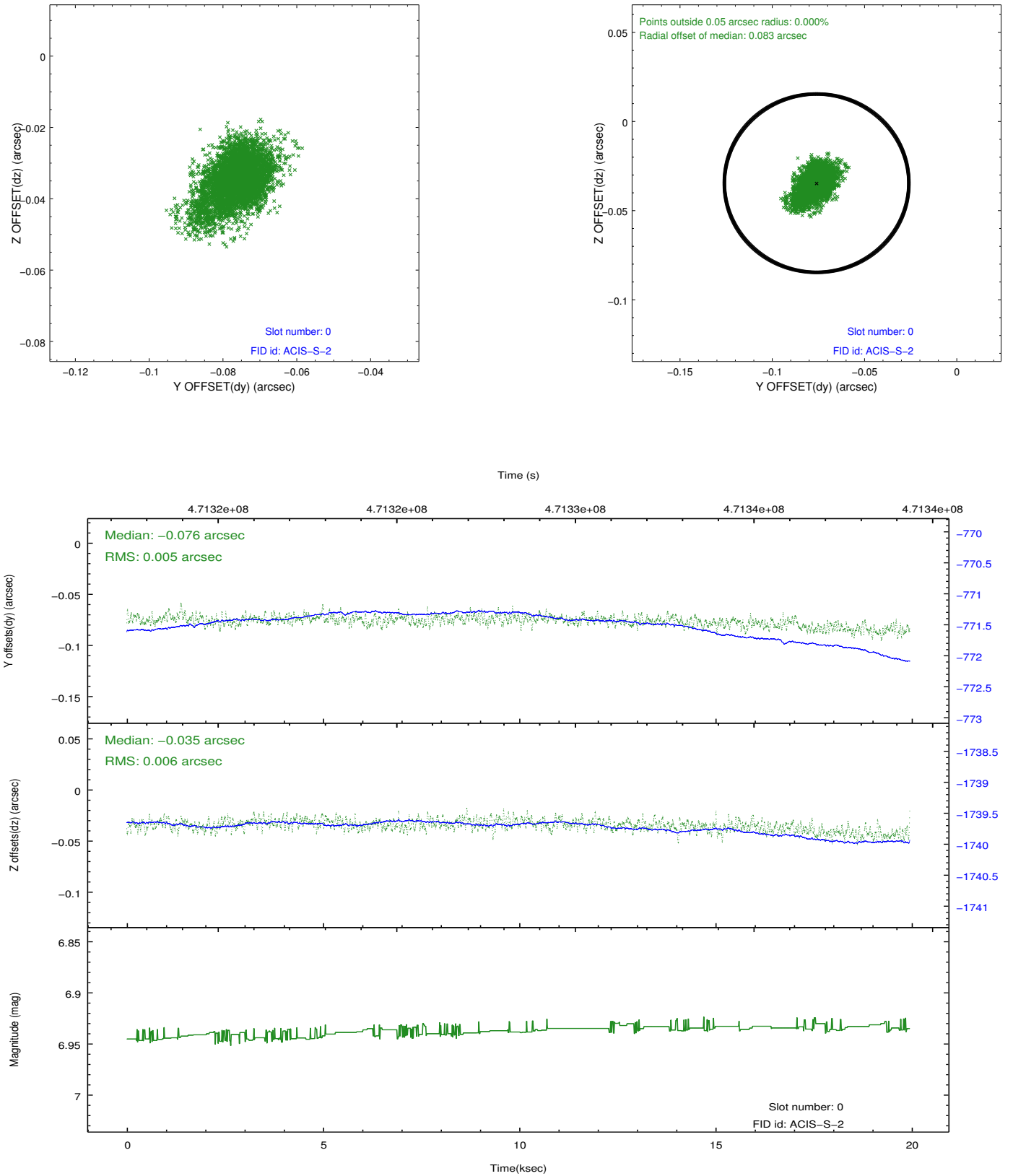


## 2.4.5 Slot 7

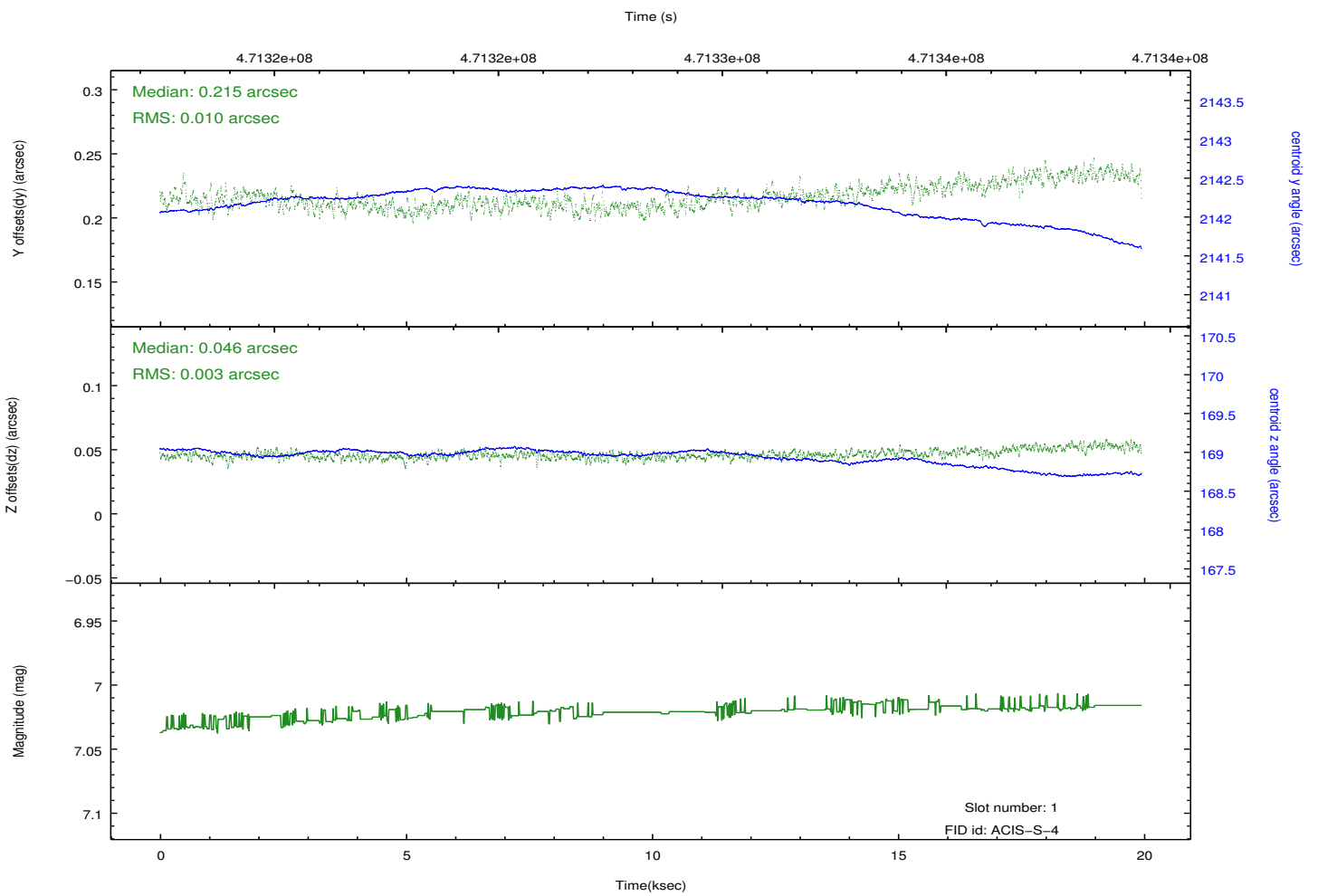
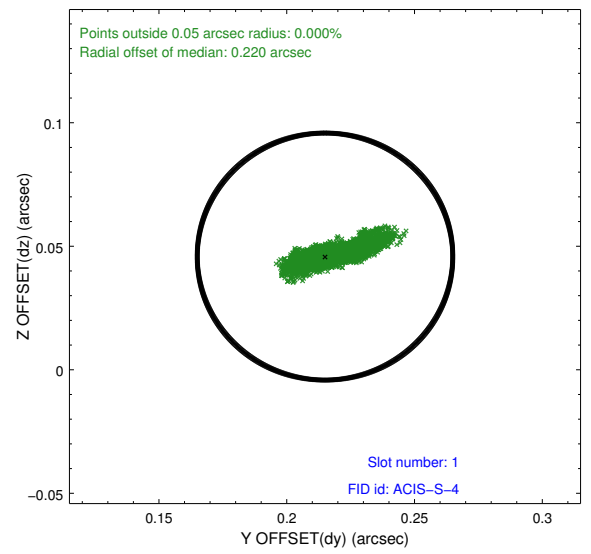
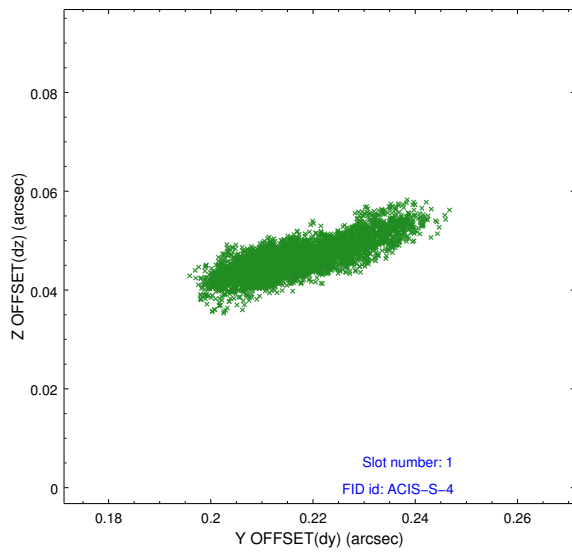


## 2.5 FID Slots

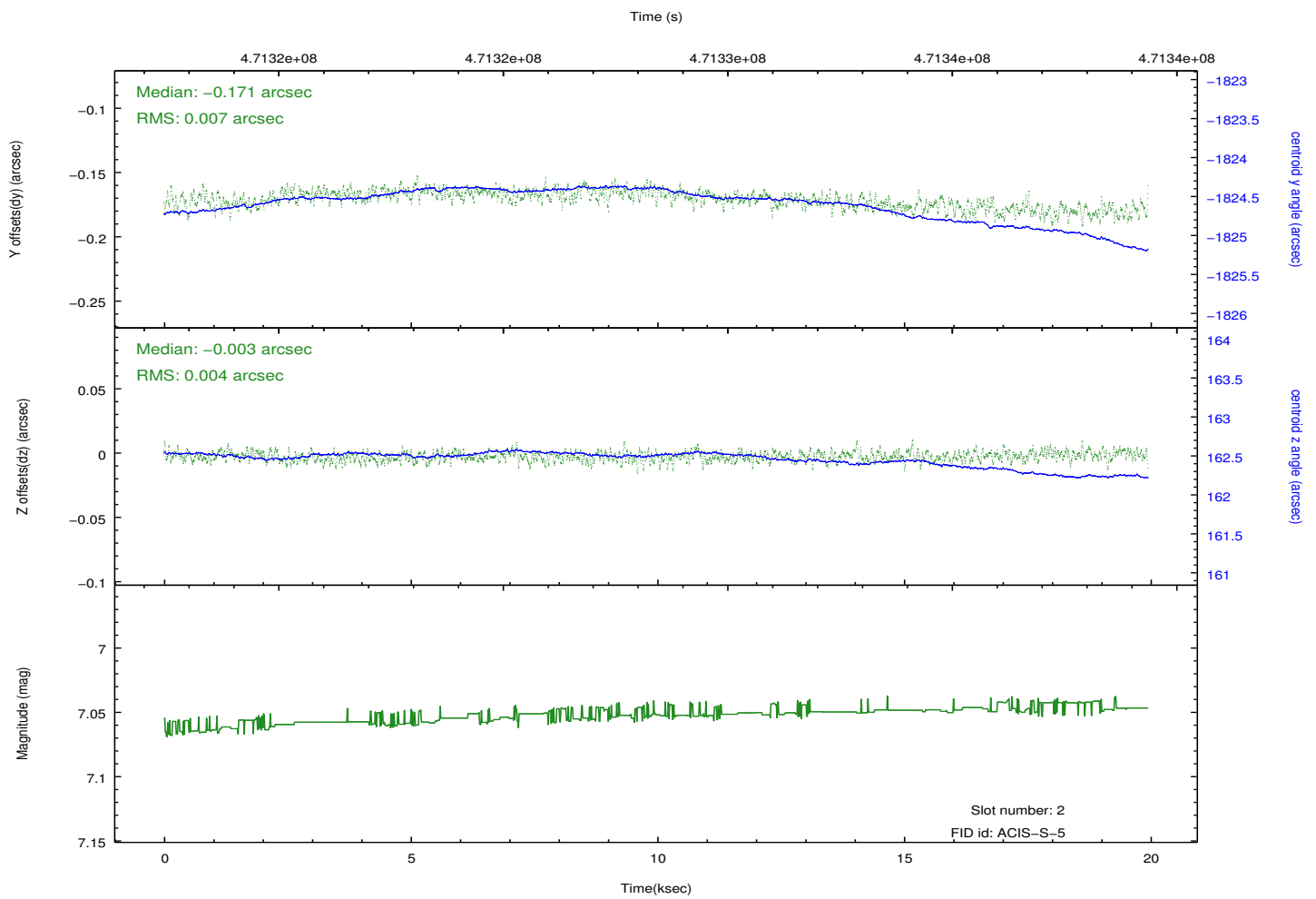
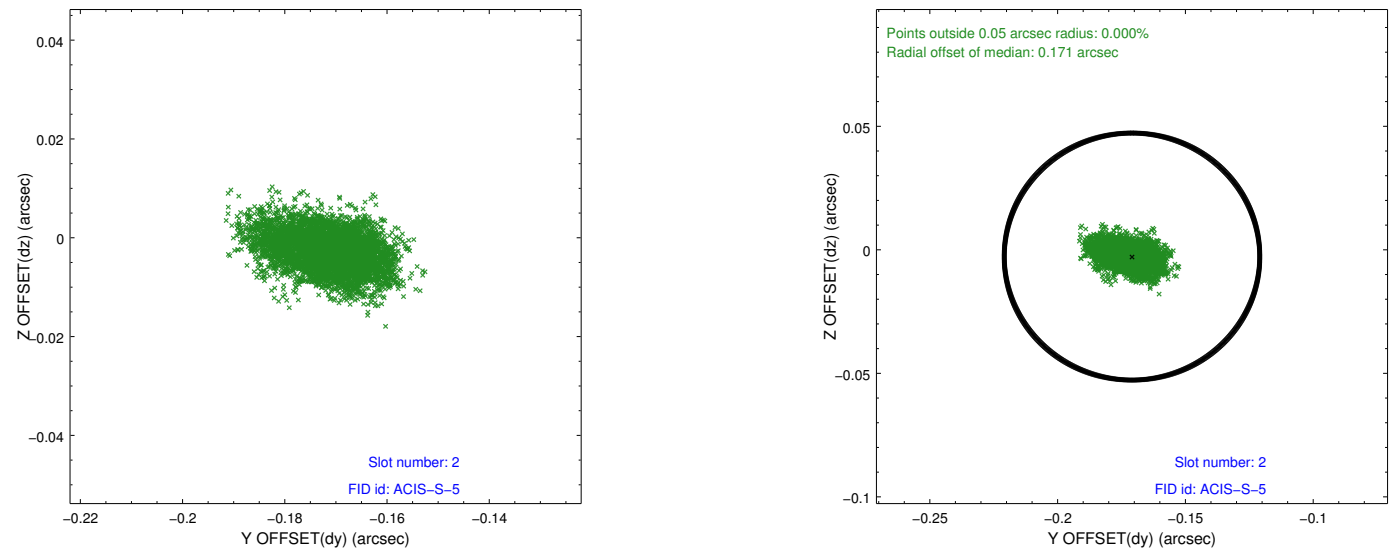
### 2.5.1 Slot 0



## 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)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	19.864800152779

## 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.