

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12359 - L2 Version 2  
Chandra X-Ray Center

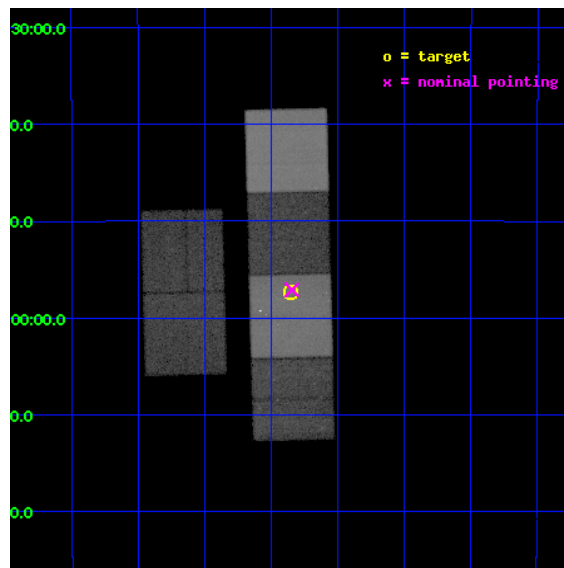
L2 Processing Date : Feb 3 2012

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# 1 Front

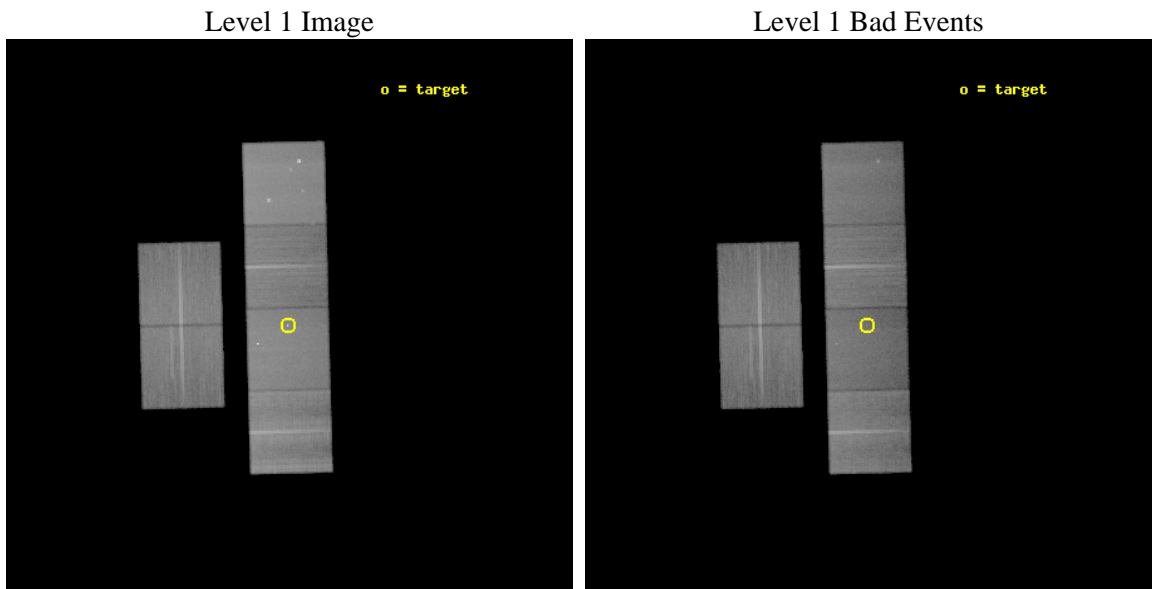
seq_num	200693	Sequence number
obs_id	12359	Observation id
title	Can Weakly Magnetized Herbig Ae Stars Drive Fast X-ray Jets?	Propo
observer	Dr. Hans Guenther	Principal investigator
object	HD 163296	Source name
dtycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	269.08875	Observer's specified target RA [deg]
dec_targ	-21.956083	Observer's specified target Dec [deg]
ra_nom	269.08611346067	Nominal RA [deg]
dec_nom	-21.9518873811	Nominal Dec [deg]
roll_nom	88.55347120234	Nominal Roll [deg]
revision	2	Processing version of data
ontime	46054.179534197	Sum of GTIs [s]
liveltime	45471.013782437	Livetime [s]
ontime2	46041.256782711	Sum of GTIs [s]
ontime3	46050.815453827	Sum of GTIs [s]
ontime5	46054.138494194	Sum of GTIs [s]
ontime6	46047.615473688	Sum of GTIs [s]
ontime7	46054.179534197	Sum of GTIs [s]
ontime8	46050.77440387	Sum of GTIs [s]
l2events	564640	Number of level 2 events



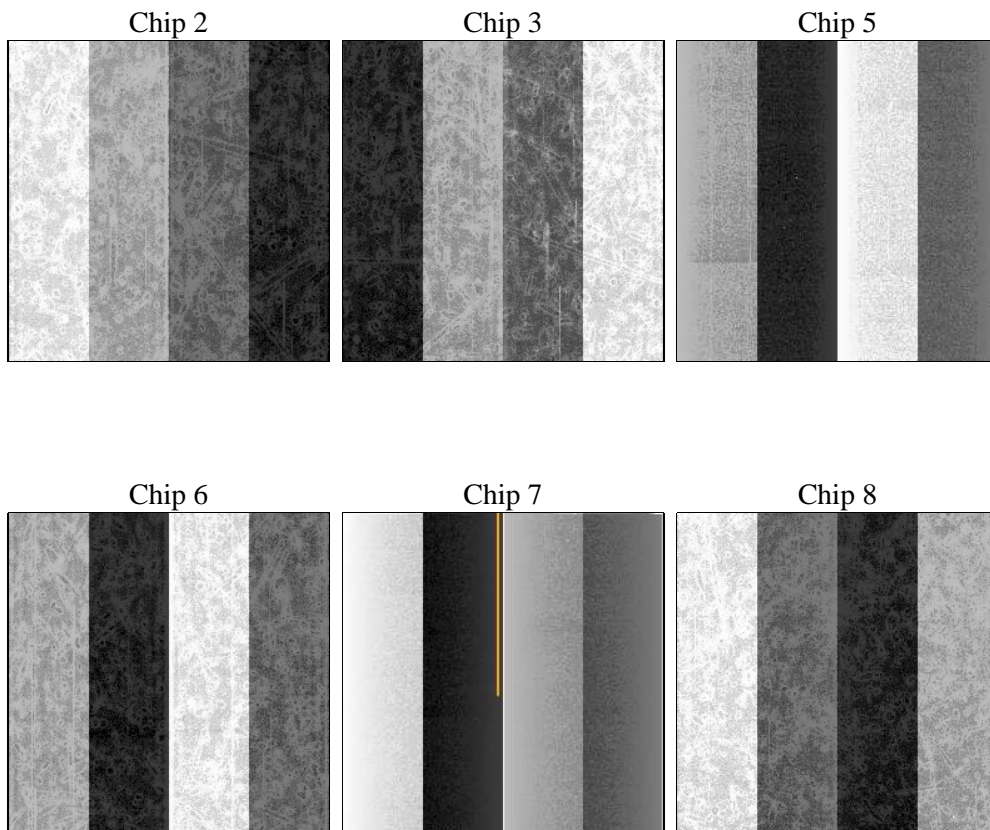
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	46000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	46054.179534197	Sum of GTIs [s]
caldbver	4.4.7	&#160	ontime2	46041.256782711	Sum of GTIs [s]
date	2012-02-03T17:09:37	Date and time of file creation	ontime3	46050.815453827	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	46054.138494194	Sum of GTIs [s]
			ontime6	46047.615473688	Sum of GTIs [s]
			ontime7	46054.179534197	Sum of GTIs [s]
			ontime8	46050.77440387	Sum of GTIs [s]
			l1events	2345439	Number of level 1 events

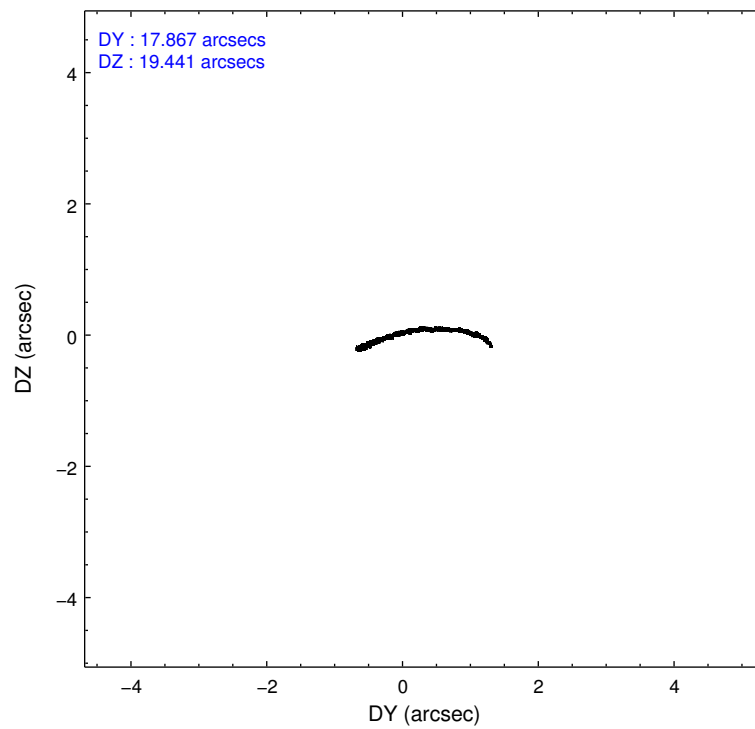
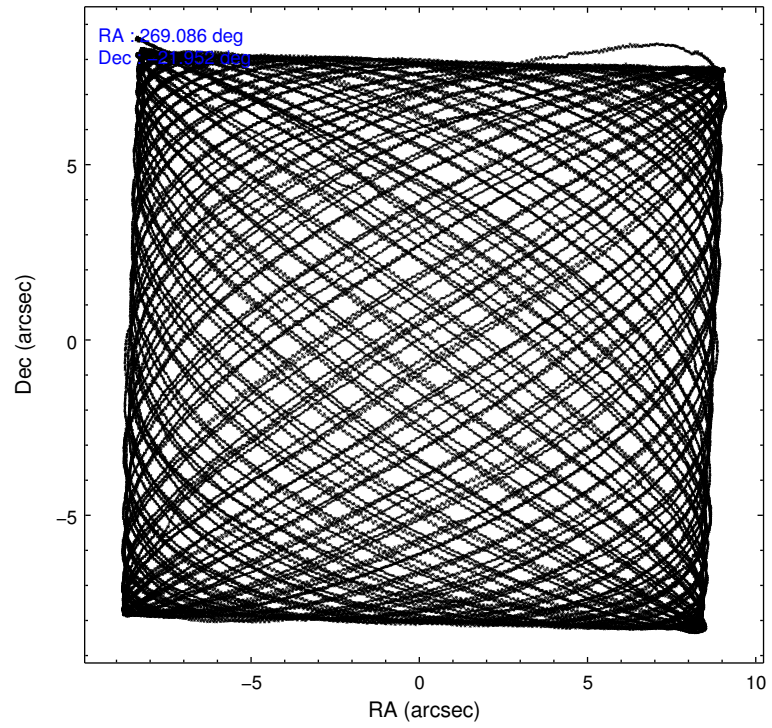
### 2.1.4 Events

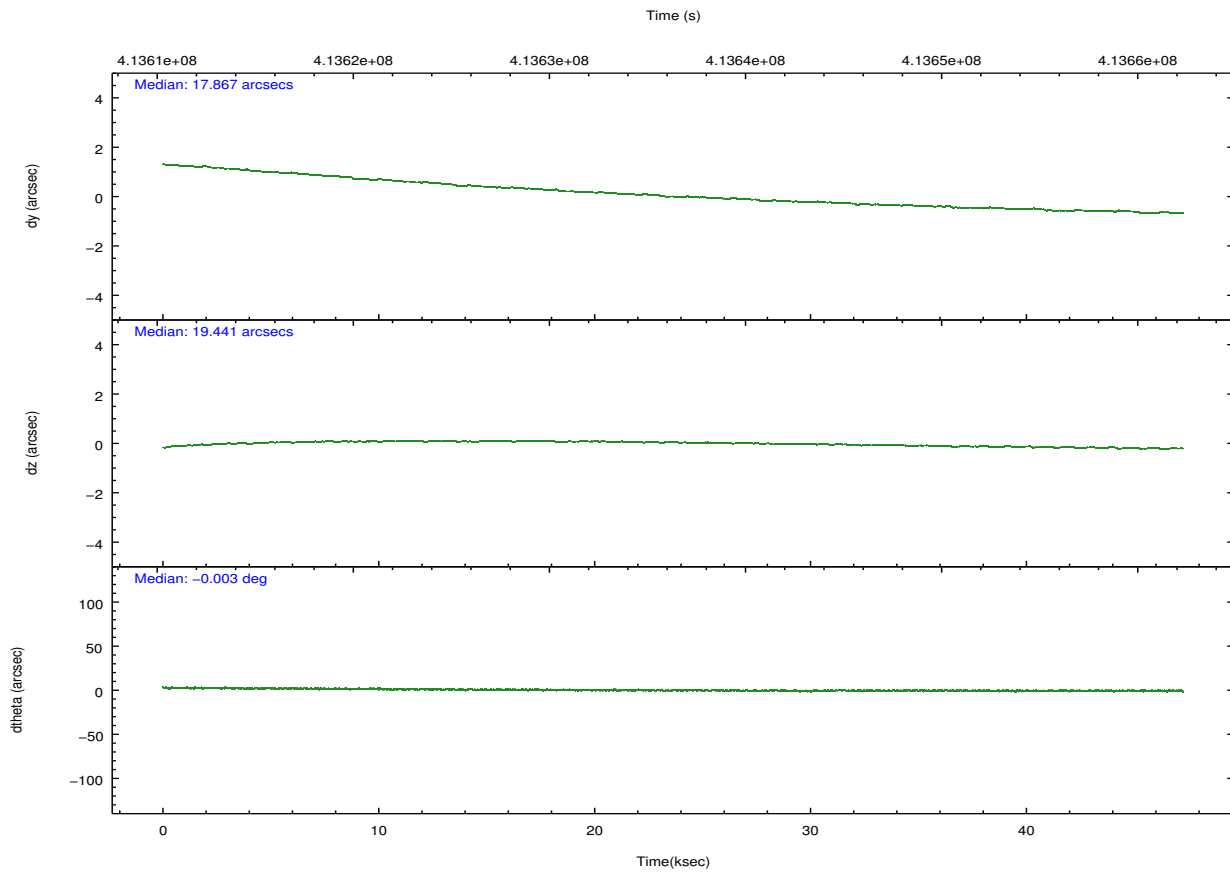
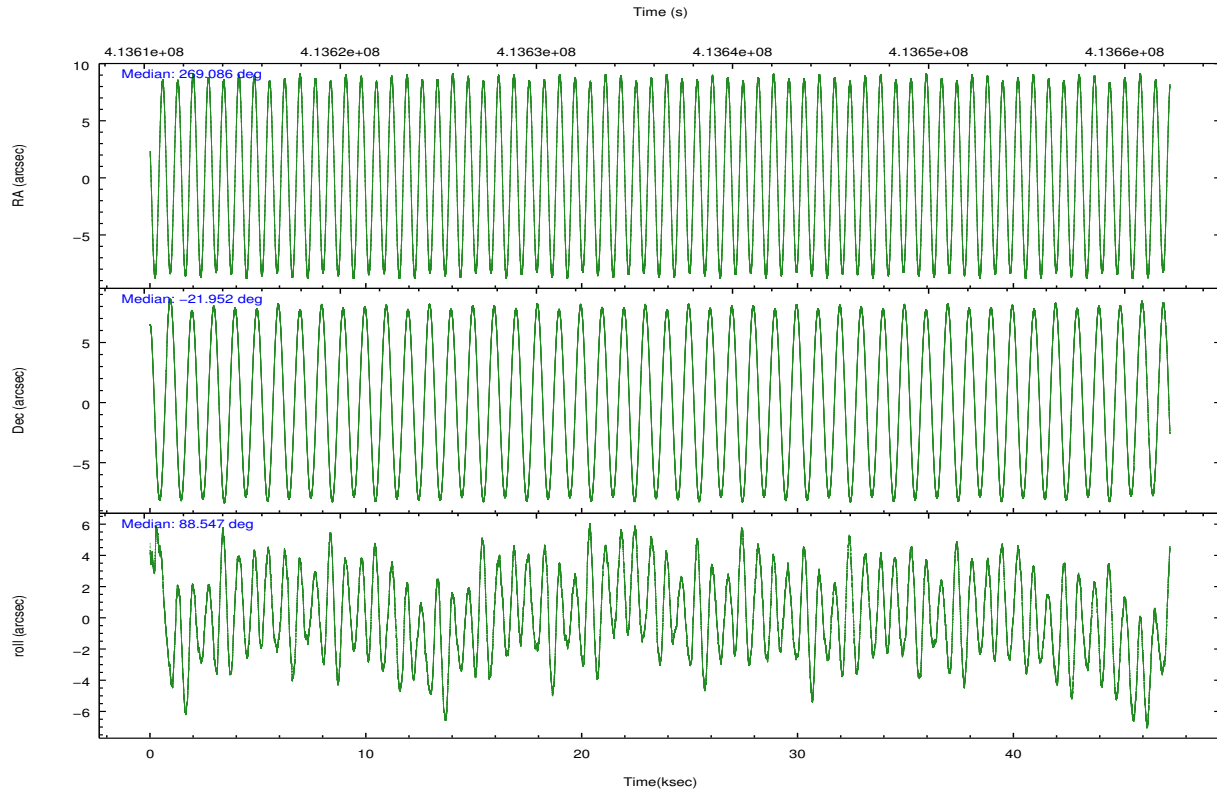
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	337543	315683	506729	331020	420116	434348	grade 0 events	13796	13010	24138	15274	21304	37001
rejected events	300664	280677	255540	291144	222513	317225		4%	4%	4%	4%	5%	8%
rejected %	89%	88%	50%	87%	52%	73%	grade 1 events	212	181	923	171	611	355
								0%	0%	0%	0%	0%	0%
							grade 2 events	8979	7517	76830	8643	41673	27079
								2%	2%	15%	2%	9%	6%
							grade 3 events	3643	3769	10054	3884	17771	11962
								1%	1%	1%	1%	4%	2%
							grade 4 events	3734	3672	9210	3932	17646	11243
								1%	1%	1%	1%	4%	2%
							grade 5 events	12895	14915	38494	15120	43166	22083
								3%	4%	7%	4%	10%	5%
							grade 6 events	6730	7041	130977	8147	99225	29847
								1%	2%	25%	2%	23%	6%
							grade 7 events	287554	265578	216103	275849	178720	294778
								85%	84%	42%	83%	42%	67%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	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	269.100565	269.0861134606696	CCD I2 on	O2	Y
[deg] Pointing Dec	-21.975721	-21.95188738110011	CCD I3 on	O1	Y
[deg] Pointing Roll	88.402250	88.55347120234029	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O3	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	O4	Y
[s] Observation start time (MET)	413613925.184000	413612387.23511	CCD S5 on	N	N
Observation start date	2011-02-09T04:44:19	2011-02-09T04:19:47	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	413659925.184000	413660262.93759	On-chip summing requested	N	N
Observation end date	2011-02-09T17:30:59	2011-02-09T17:37:42	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect





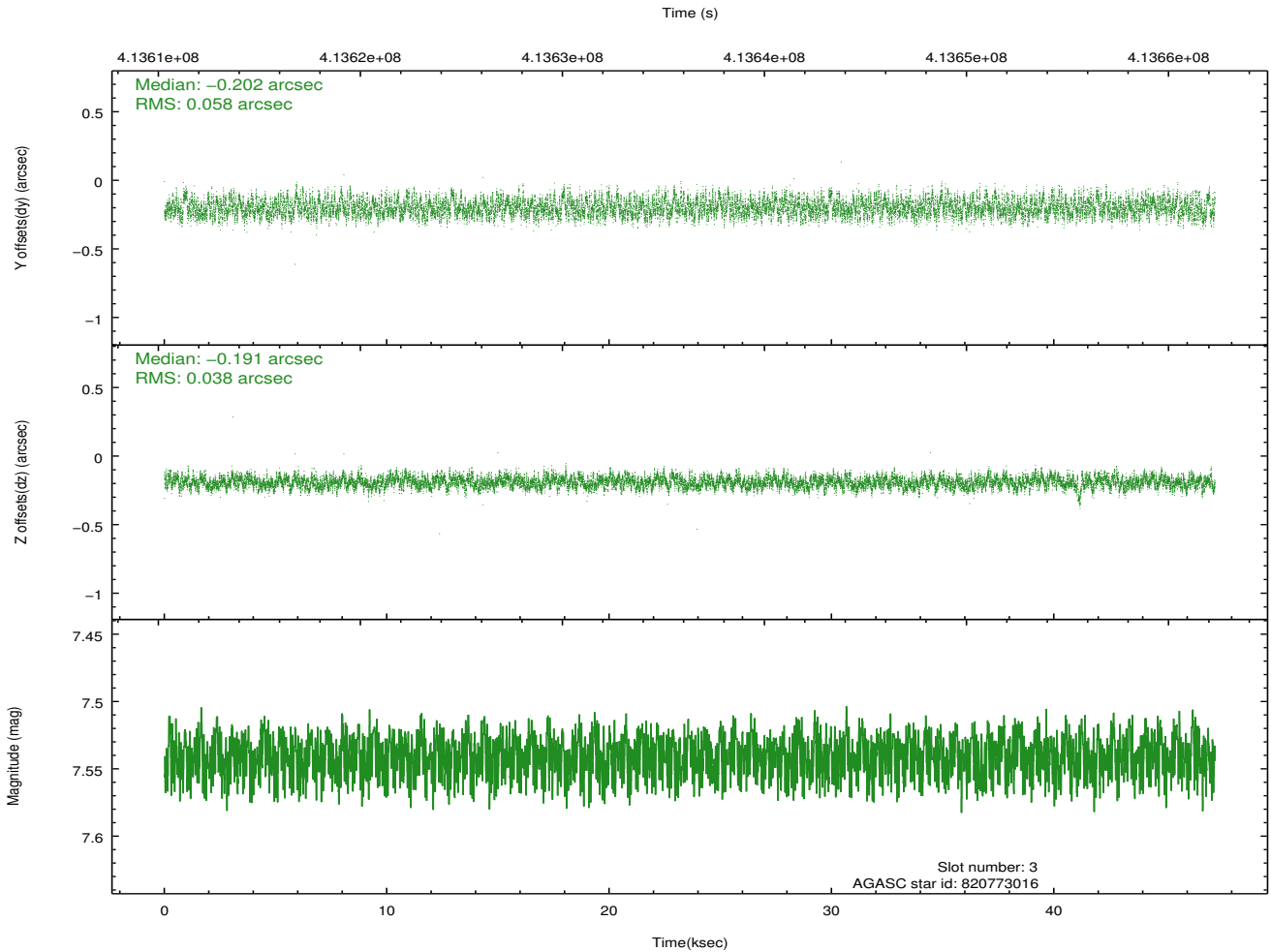
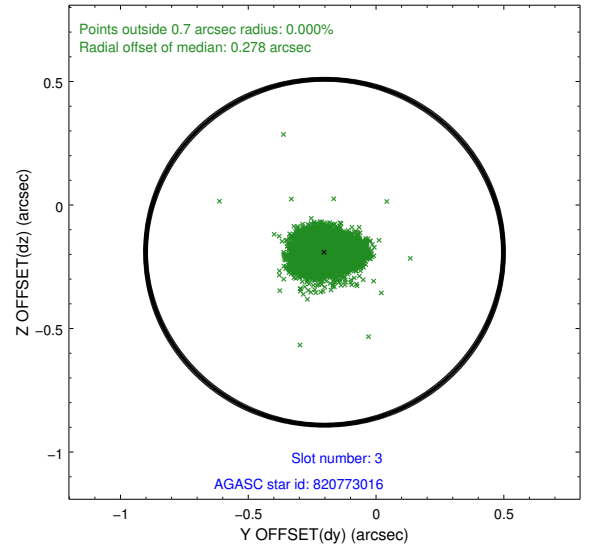
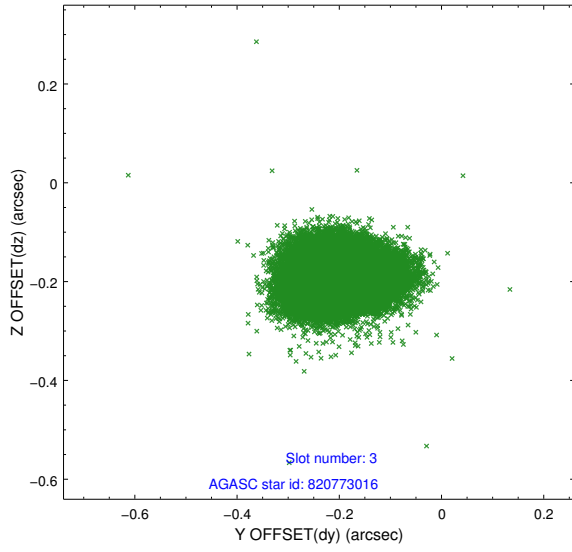
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.87	11523	-0.102	-0.048	0.018	0.026	0.000000	0.000000	-771.18	-1740.90
1	FID	ACIS-S-4	6.95	11523	0.133	0.057	0.013	0.020	0.000000	0.000000	2142.38	167.64
2	FID	ACIS-S-6	7.09	11523	-0.058	-0.002	0.011	0.017	0.000000	0.000000	390.89	805.00
3	GUIDE	820773016	7.54	23040	-0.202	-0.191	0.075	0.118	269.044814	-22.460042	-1748.46	136.51
4	GUIDE	820773304	8.87	23032	0.176	0.281	0.099	0.156	269.732479	-22.384330	-1417.23	-2140.33
5	GUIDE	820788136	7.98	23041	-0.002	0.204	0.066	0.109	269.432922	-22.233732	-898.55	-1132.77
6	GUIDE	820788216	9.38	22939	0.026	-0.525	0.097	0.159	268.456139	-22.138569	-650.55	2131.20
7	GUIDE	896673568	7.27	23043	-0.005	0.226	0.078	0.121	269.738578	-22.517547	-1894.77	-2175.16

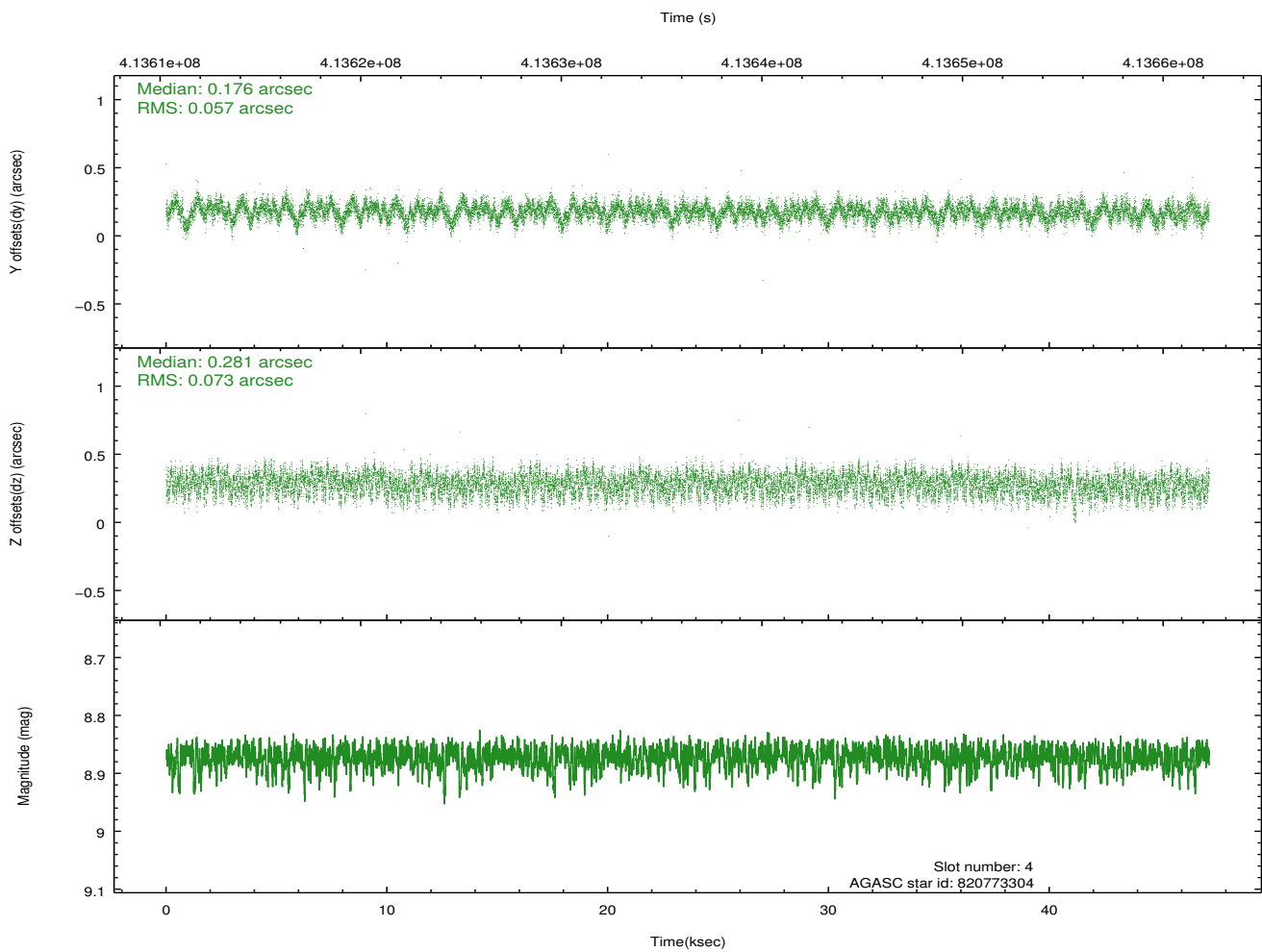
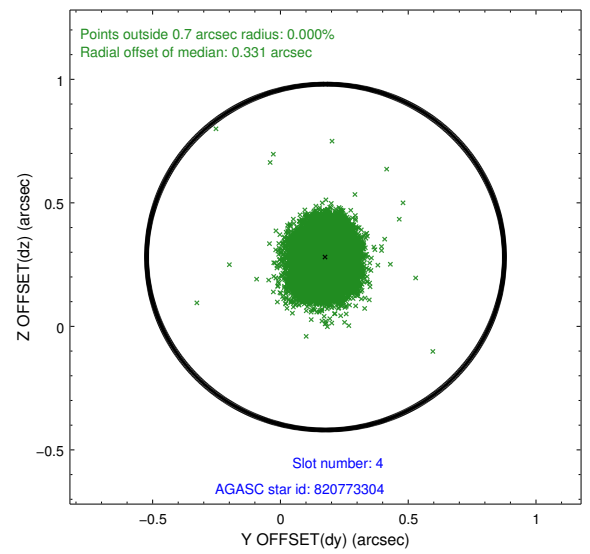
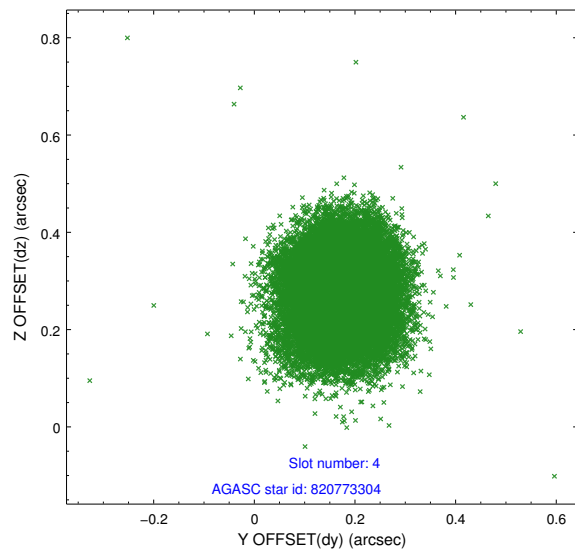
∞

## 2.4 Star Slots

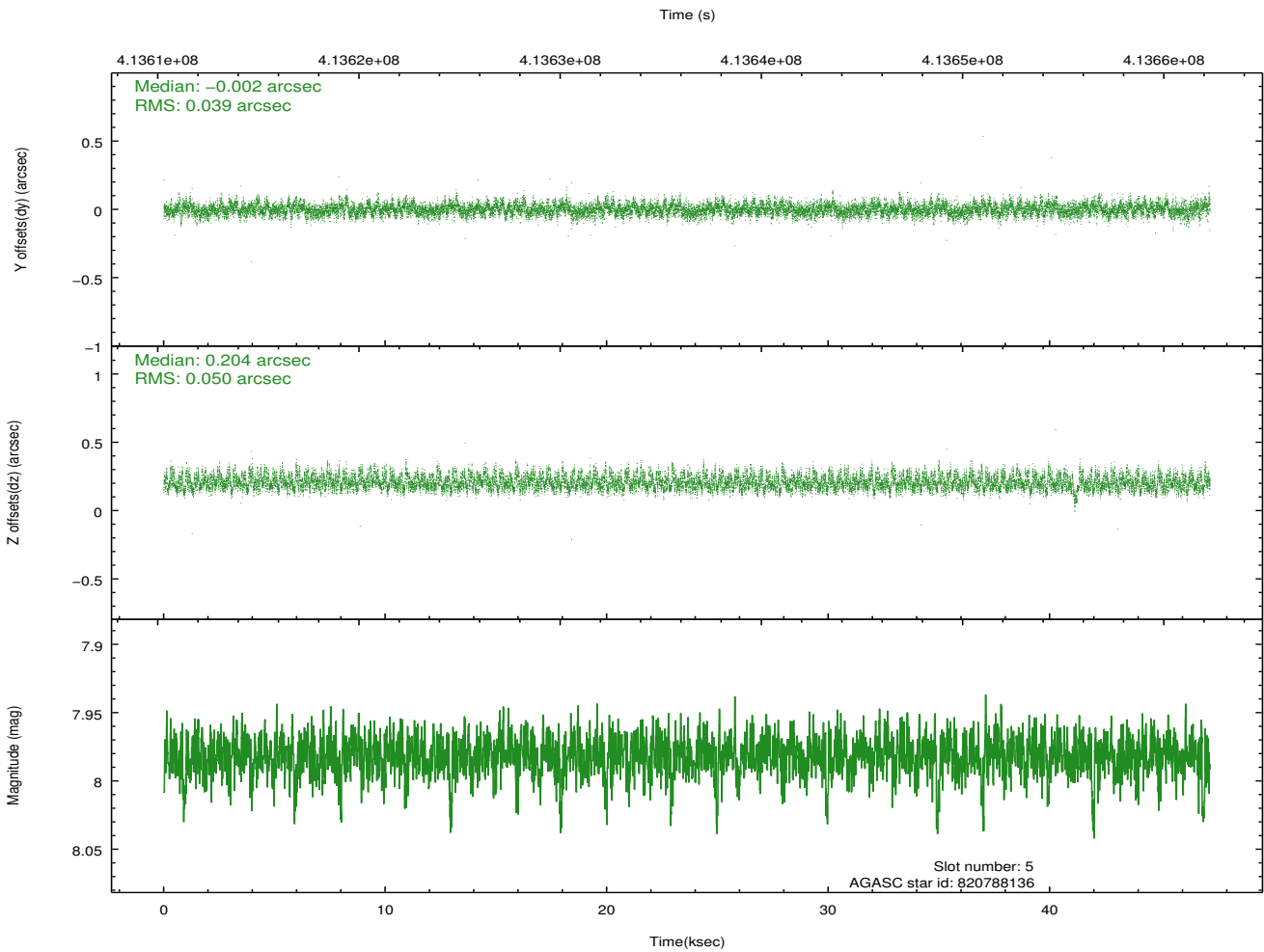
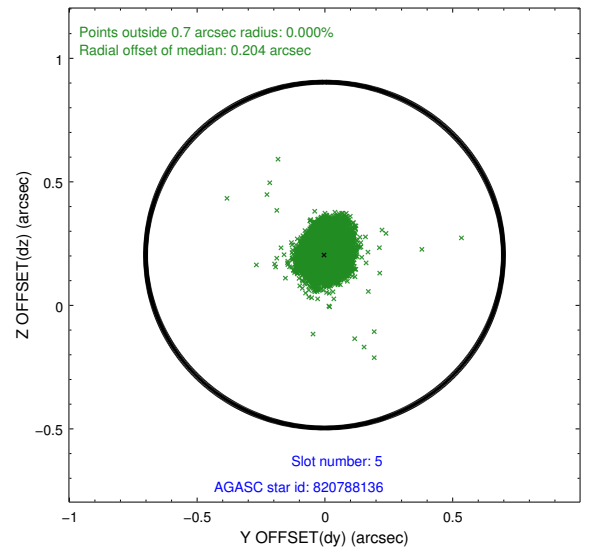
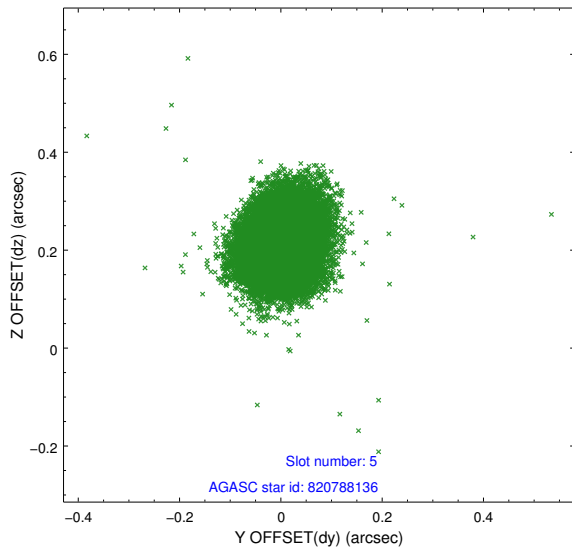
### 2.4.1 Slot 3



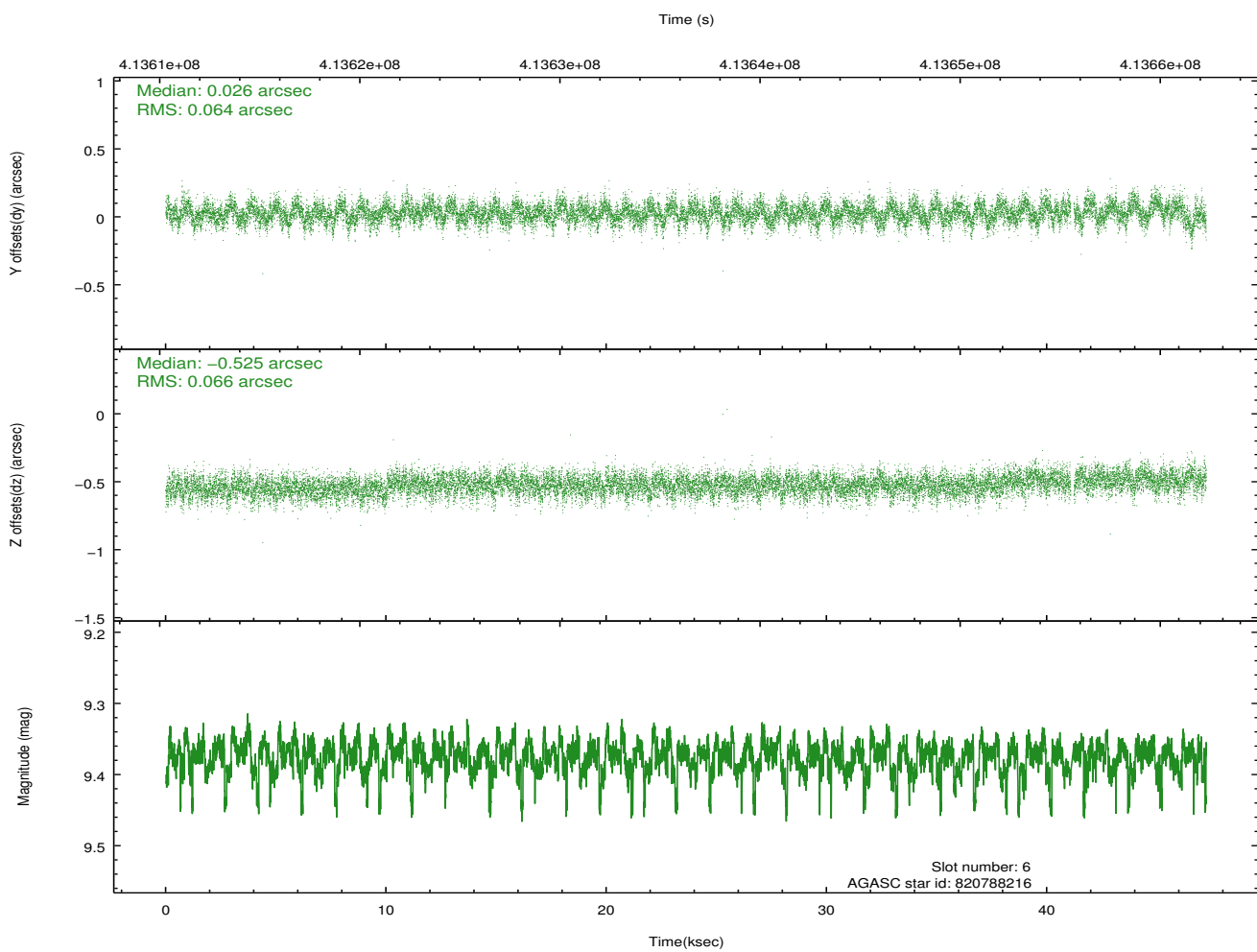
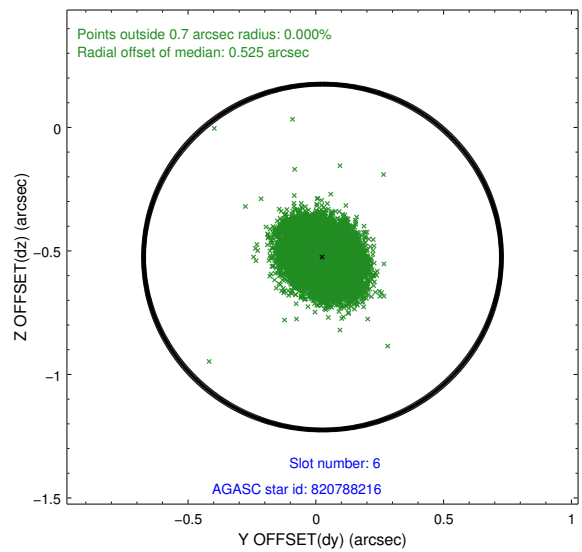
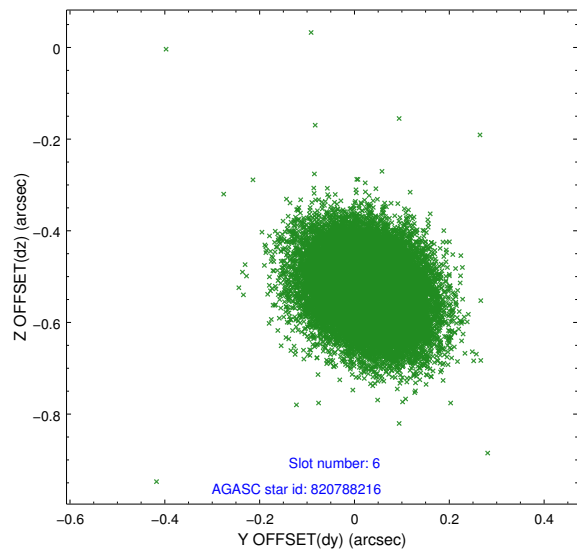
## 2.4.2 Slot 4



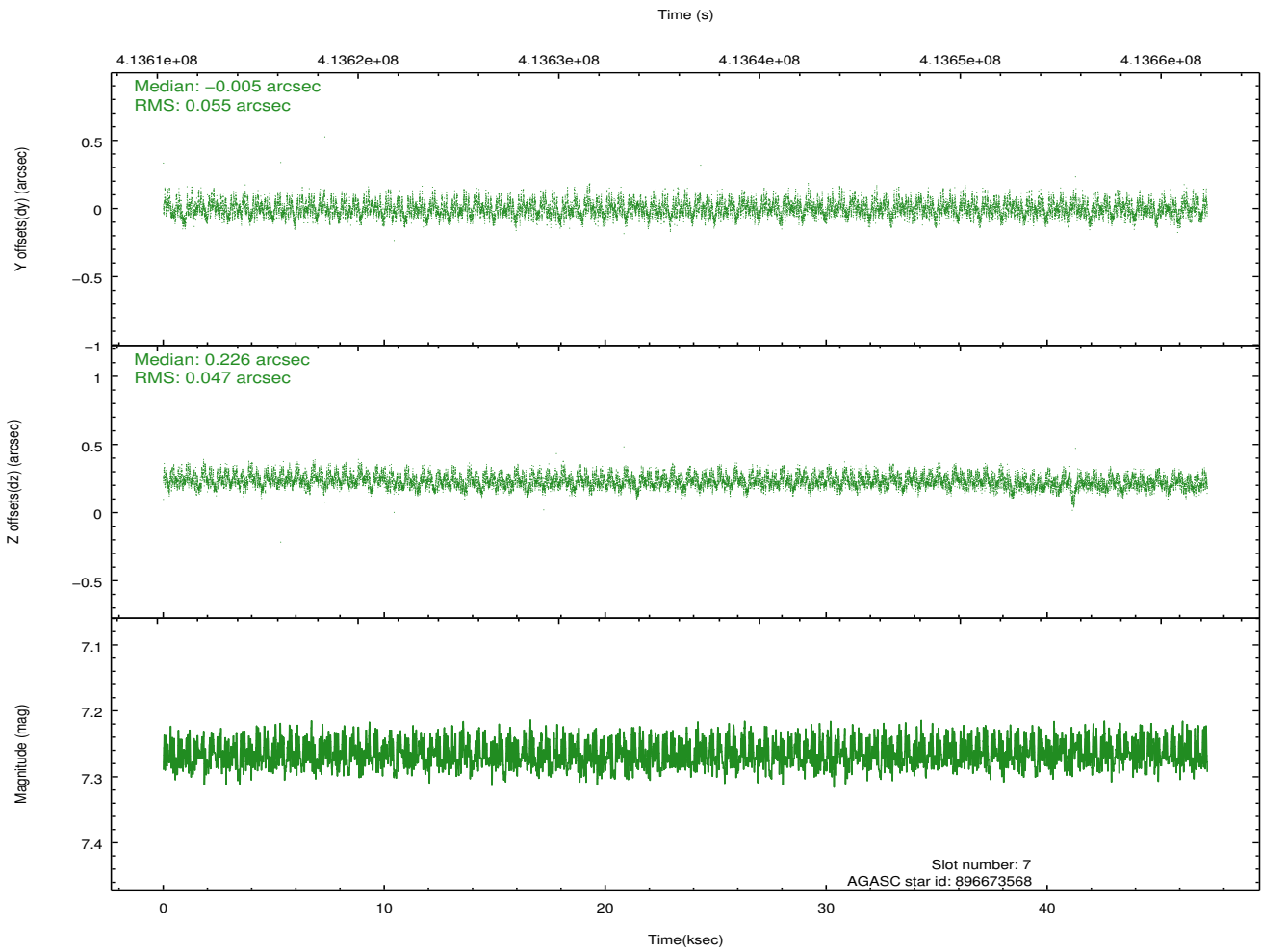
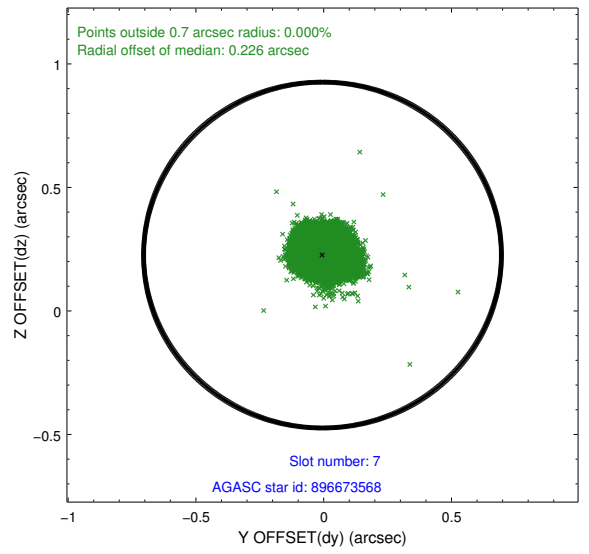
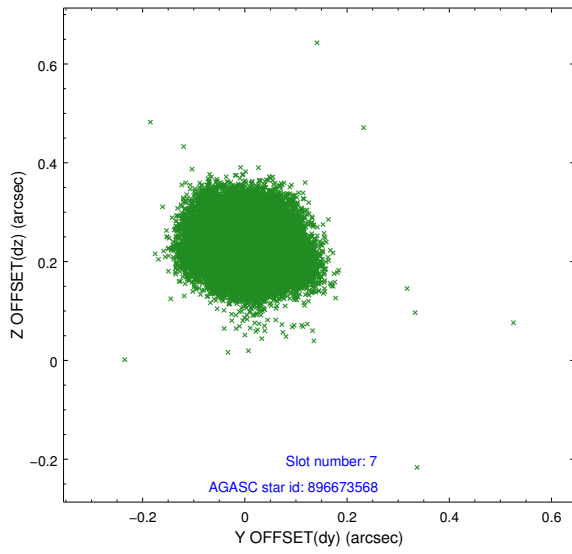
### 2.4.3 Slot 5



## 2.4.4 Slot 6

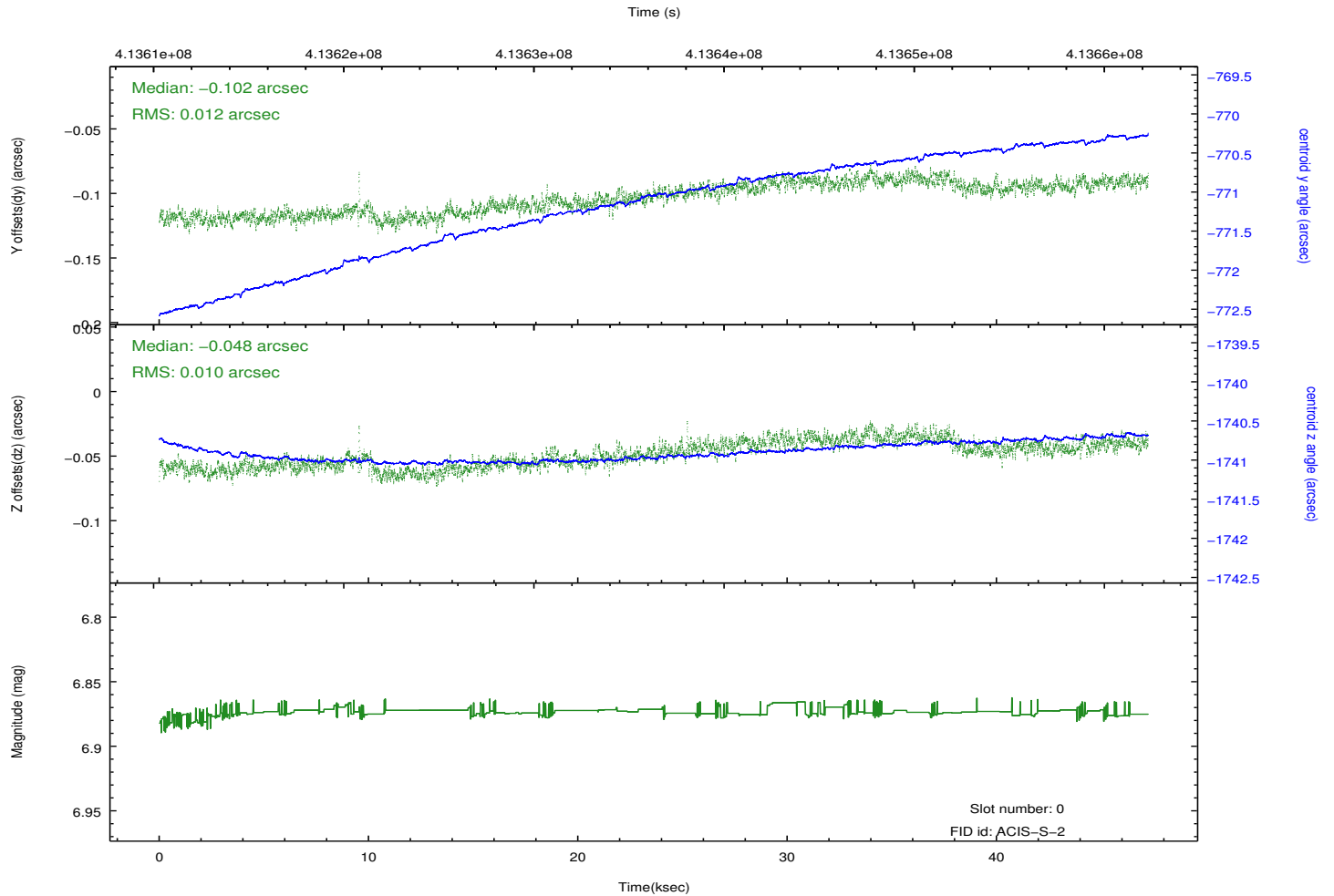
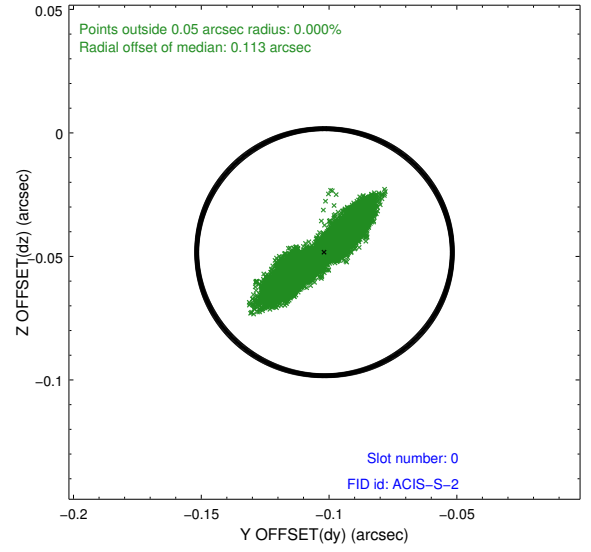
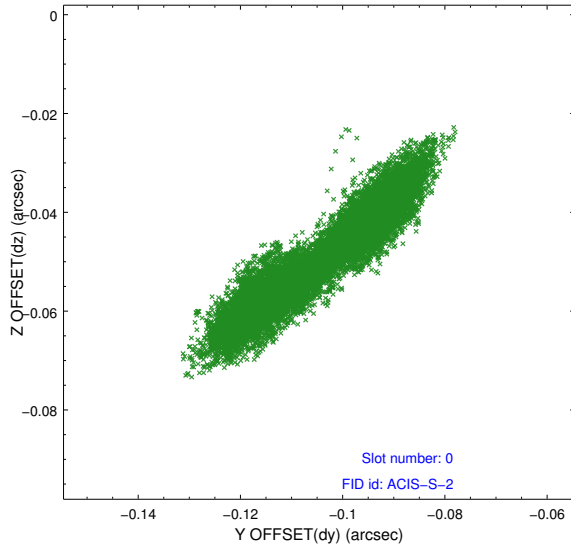


### 2.4.5 Slot 7

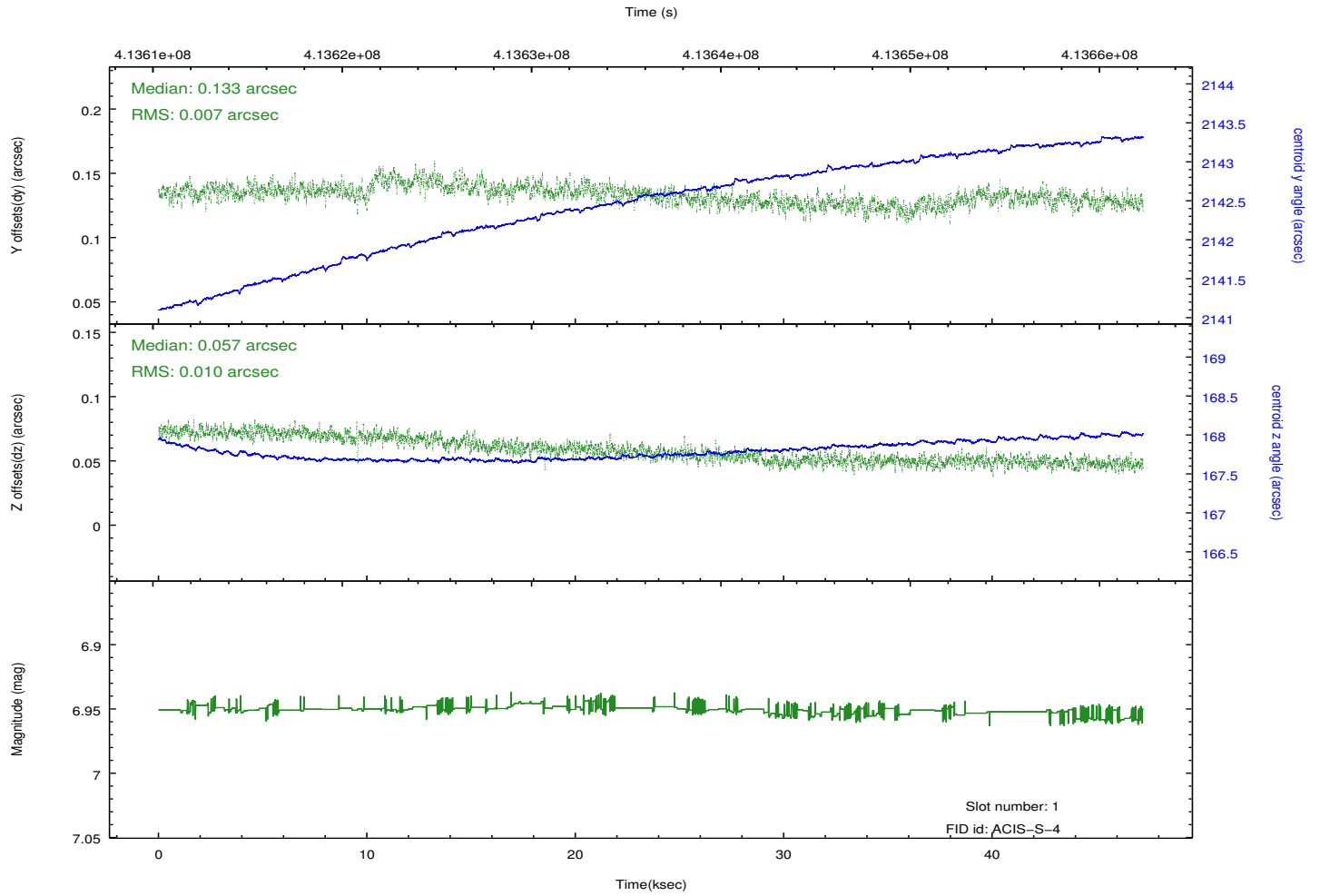
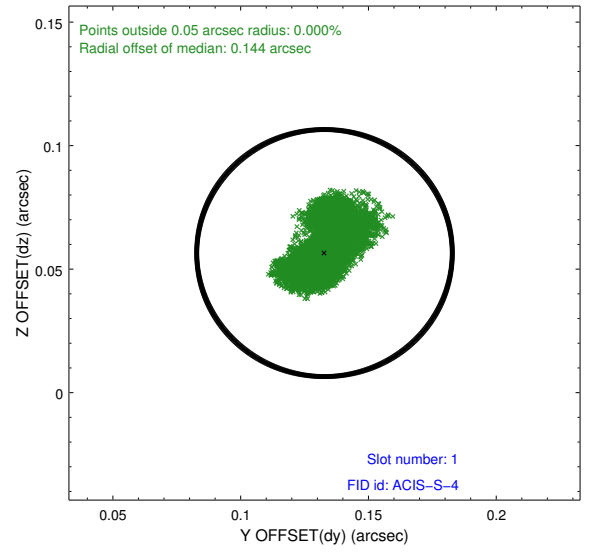
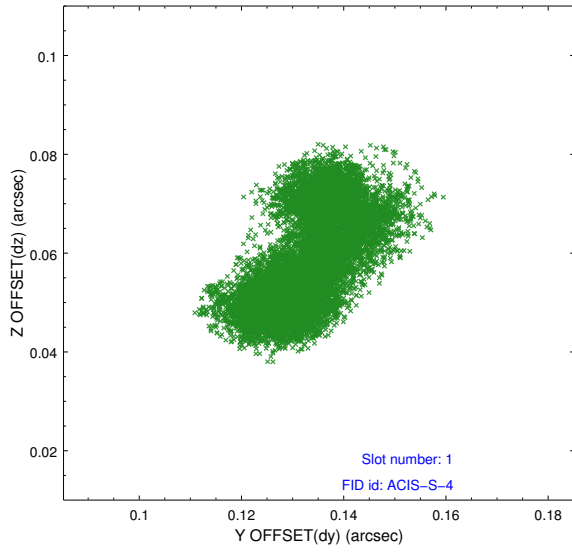


## 2.5 FID Slots

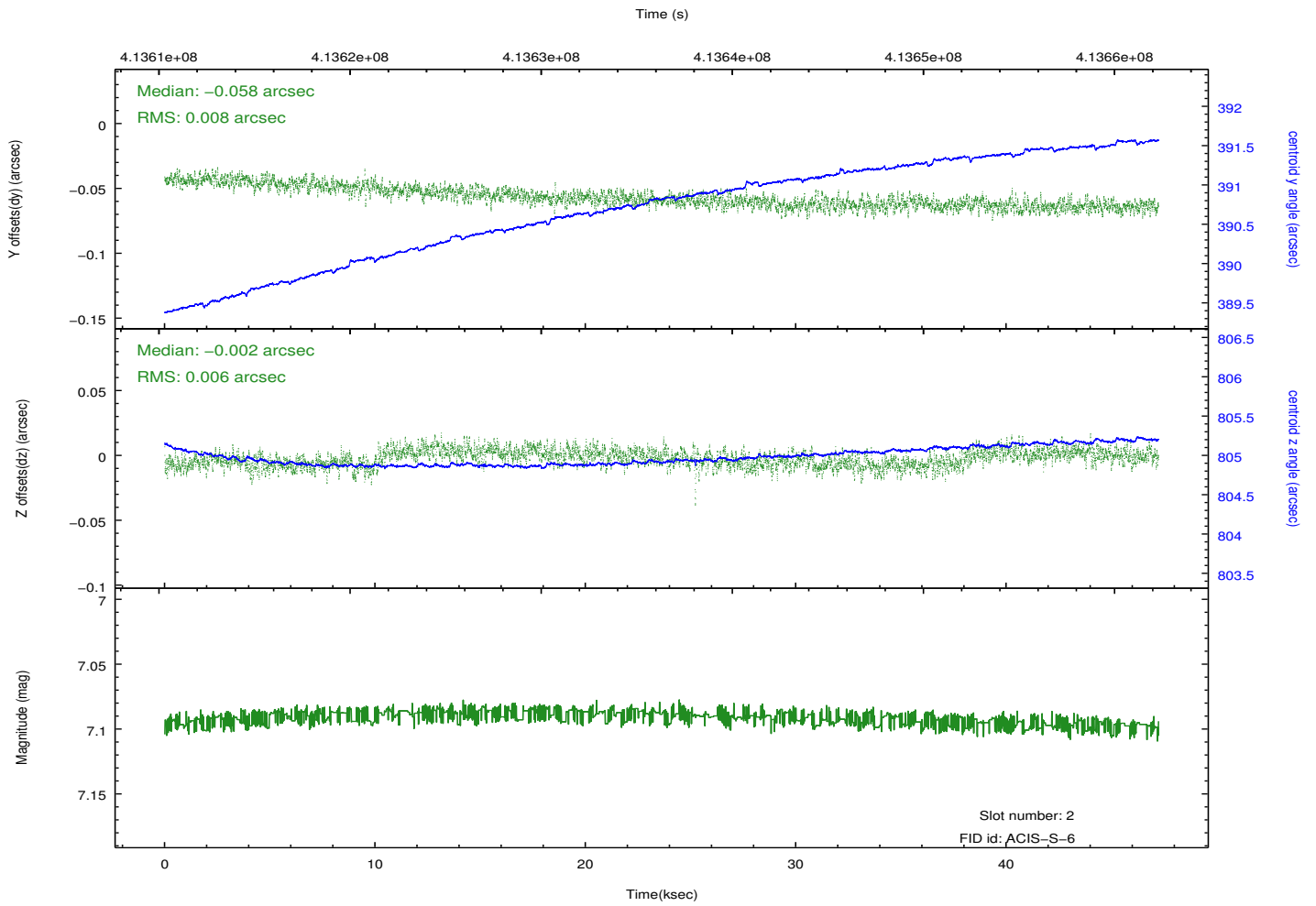
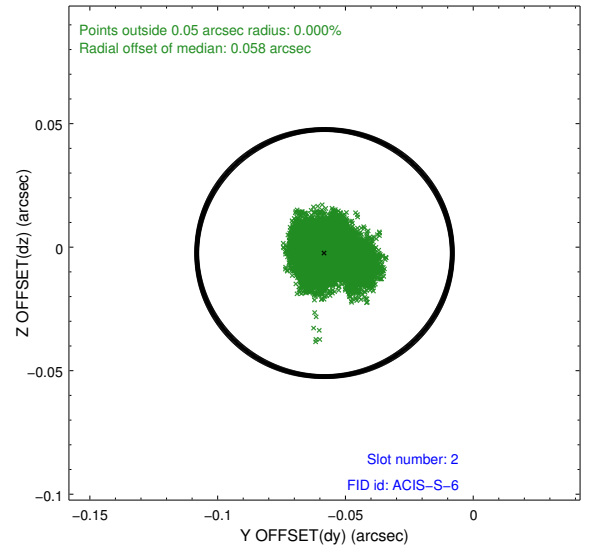
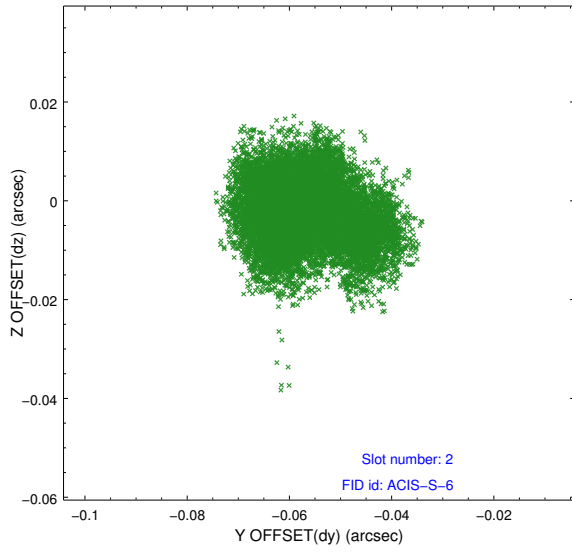
### 2.5.1 Slot 0



## 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)	2012.02.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	46.054179539323

## A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSEr algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.