

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 10709 - L2 Version 2  
Chandra X-Ray Center

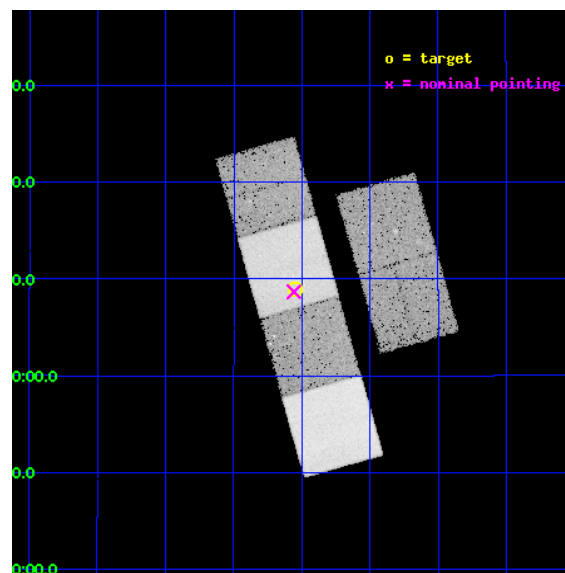
L2 Processing Date : Jun 6 2012

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# 1 Front

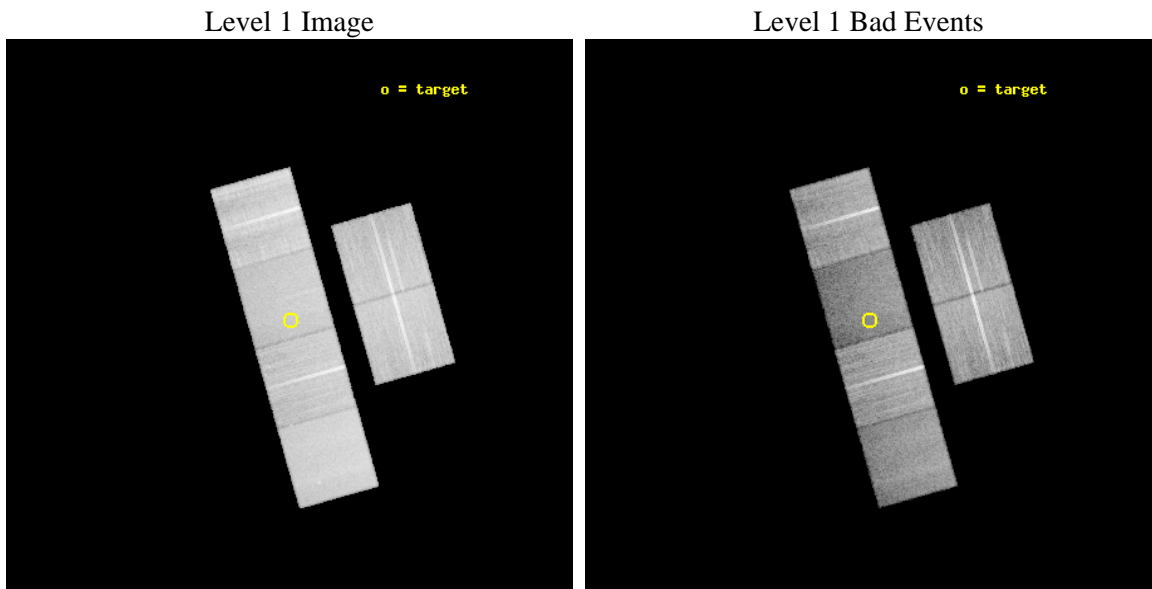
seq_num	501165	Sequence number
obs_id	10709	Observation id
title	Long GRB Jet Breaks	Proposal title
observer	Professor Gordon Garmire	Principal investigator
object	GRB 090423	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	148.8883	Observer's specified target RA [deg]
dec_targ	18.14937	Observer's specified target Dec [deg]
ra_nom	148.8896996694	Nominal RA [deg]
dec_nom	18.144697957859	Nominal Dec [deg]
roll_nom	254.15619394431	Nominal Roll [deg]
revision	2	Processing version of data
ontime	23036.799914241	Sum of GTIs [s]
livetime	22745.094082631	Livetime [s]
ontime2	23036.799914241	Sum of GTIs [s]
ontime3	23036.799914241	Sum of GTIs [s]
ontime5	23036.799914241	Sum of GTIs [s]
ontime6	23033.55892396	Sum of GTIs [s]
ontime7	23036.799914241	Sum of GTIs [s]
ontime8	23036.799914241	Sum of GTIs [s]
l2events	266865	Number of level 2 events



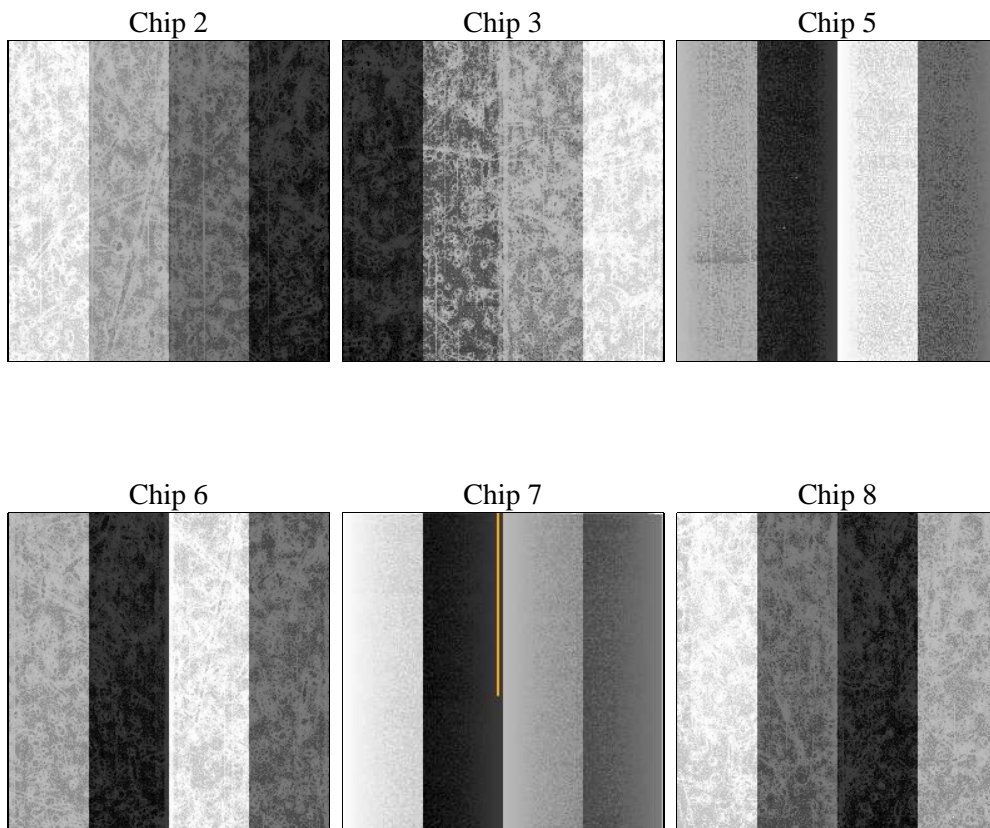
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	23000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	23036.799914241	Sum of GTIs [s]
caldbver	4.4.10	&#160	ontime2	23036.799914241	Sum of GTIs [s]
date	2012-06-07T00:14:29	Date and time of file creation	ontime3	23036.799914241	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	23036.799914241	Sum of GTIs [s]
			ontime6	23033.55892396	Sum of GTIs [s]
			ontime7	23036.799914241	Sum of GTIs [s]
			ontime8	23036.799914241	Sum of GTIs [s]
			l1events	1217390	Number of level 1 events

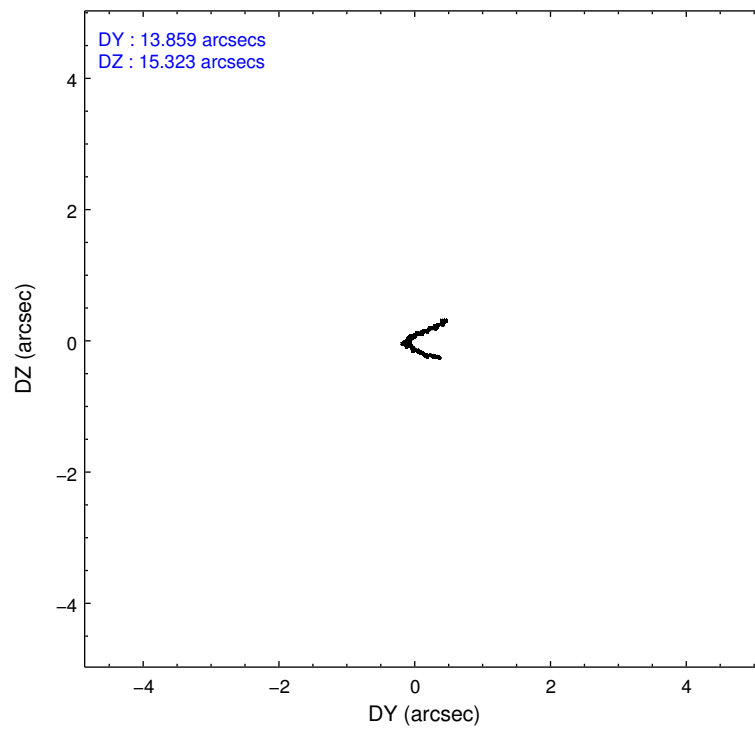
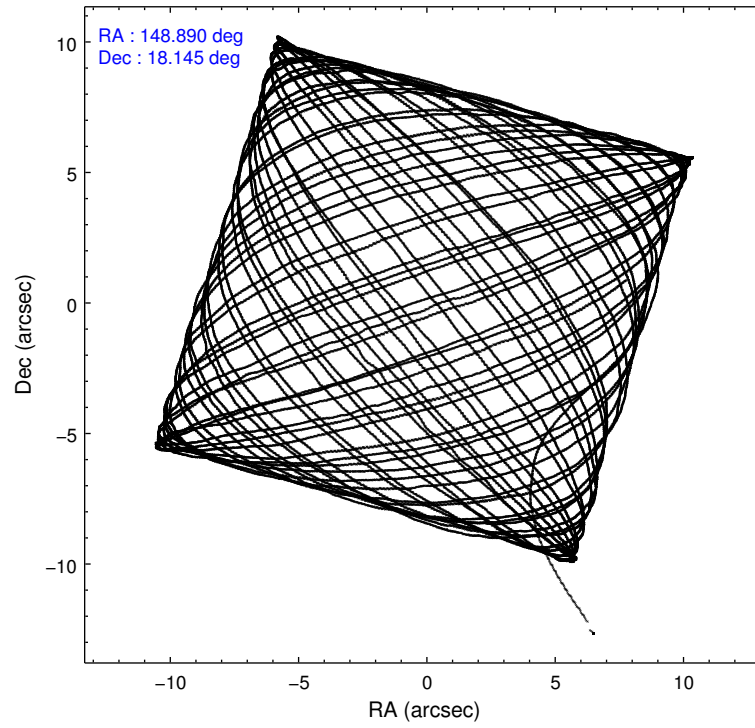
### 2.1.4 Events

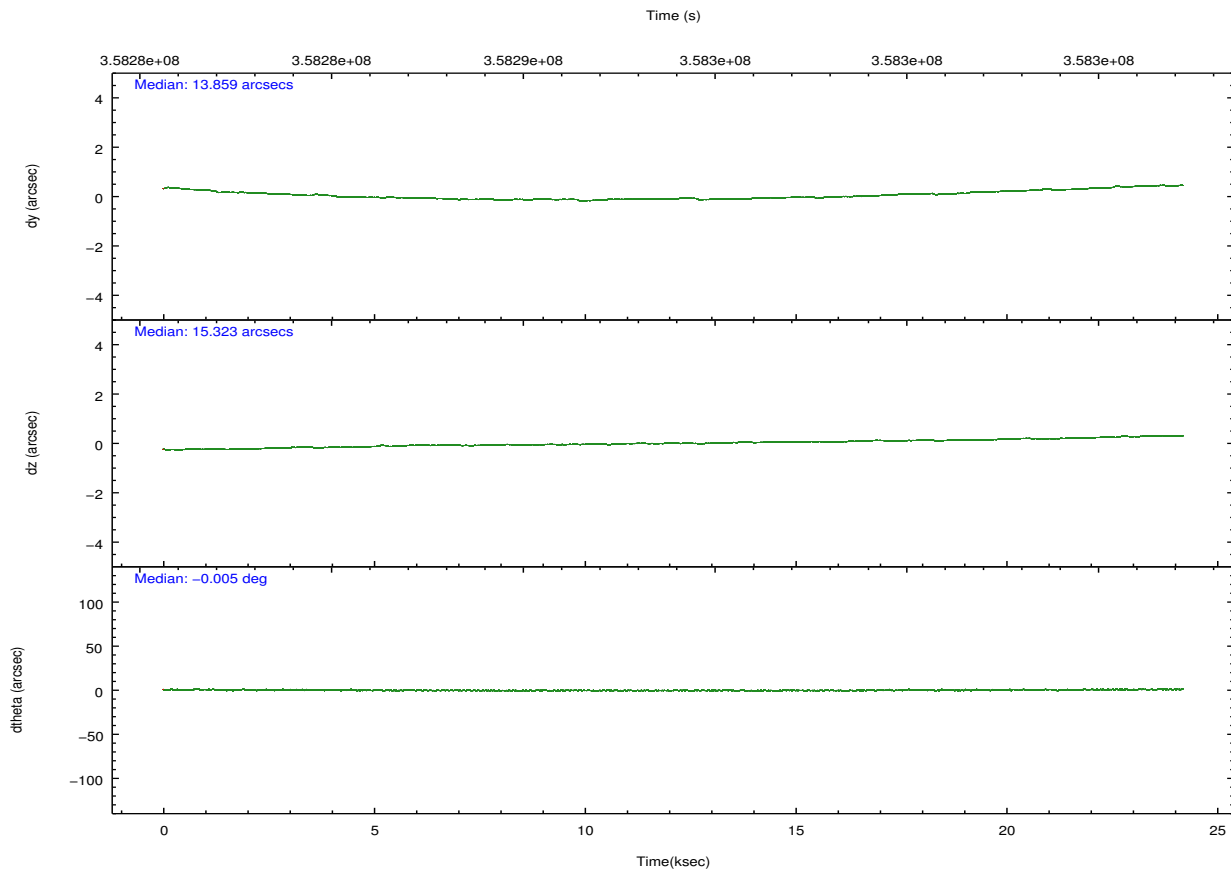
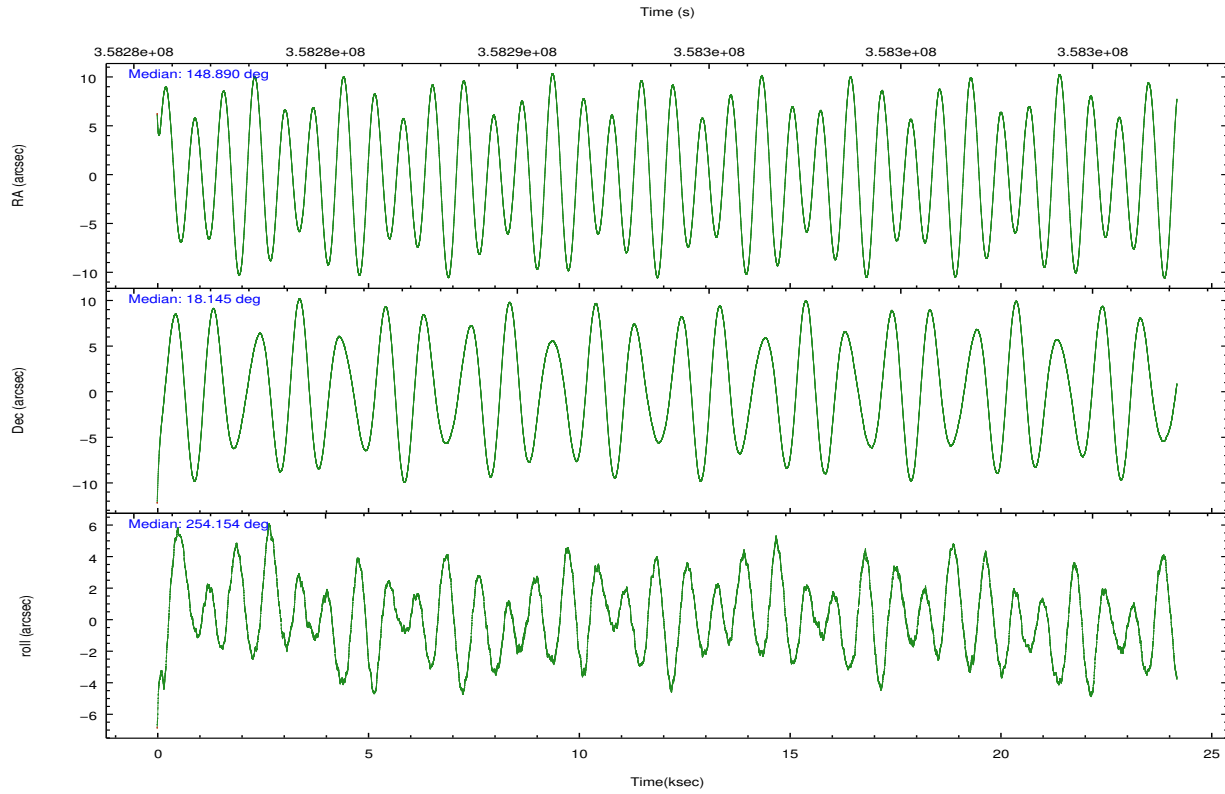
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8		ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	201876	180963	232584	188511	180407	233049	grade 0 events	6482	6334	8808	7214	8800	16980
rejected events	183799	163813	111675	168964	92108	173093		3%	3%	3%	3%	4%	7%
rejected %	91%	90%	48%	89%	51%	74%	grade 1 events	128	103	518	94	272	192
								0%	0%	0%	0%	0%	0%
							grade 2 events	4661	3743	38113	4503	18954	14243
								2%	2%	16%	2%	10%	6%
							grade 3 events	1862	1975	5298	2010	8106	6469
								0%	1%	2%	1%	4%	2%
							grade 4 events	1859	1863	5070	1988	8231	6092
								0%	1%	2%	1%	4%	2%
							grade 5 events	5451	6412	18820	6484	19364	10055
								2%	3%	8%	3%	10%	4%
							grade 6 events	3216	3242	63656	3838	44227	16182
								1%	1%	27%	2%	24%	6%
							grade 7 events	178217	157291	92301	162380	72453	162836
								88%	86%	39%	86%	40%	69%

## 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	148.882272	148.8896996693967	CCD I2 on	O2	Y
[deg] Pointing Dec	18.171126	18.14469795785927	CCD I3 on	O3	Y
[deg] Pointing Roll	254.001886	254.1561939443084	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	O1	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	O5	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	O4	Y
[s] Observation start time (MET)	358282819.184000	358281000.9876	CCD S5 on	N	N
Observation start date	2009-05-09T18:59:13	2009-05-09T18:30:00	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	358305819.184000	358306998.5764	On-chip summing requested	N	N
Observation end date	2009-05-10T01:22:33	2009-05-10T01:43:18	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



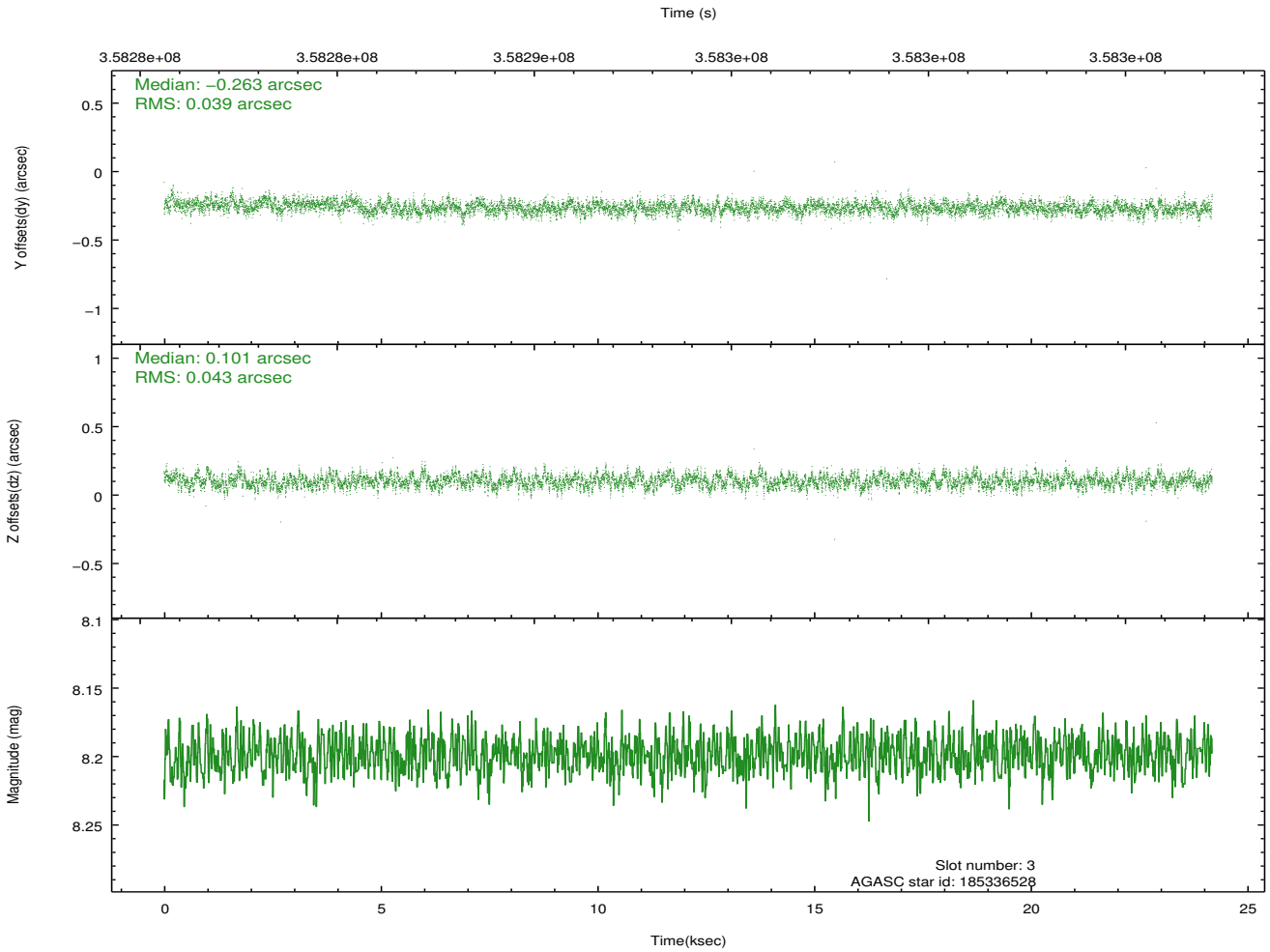
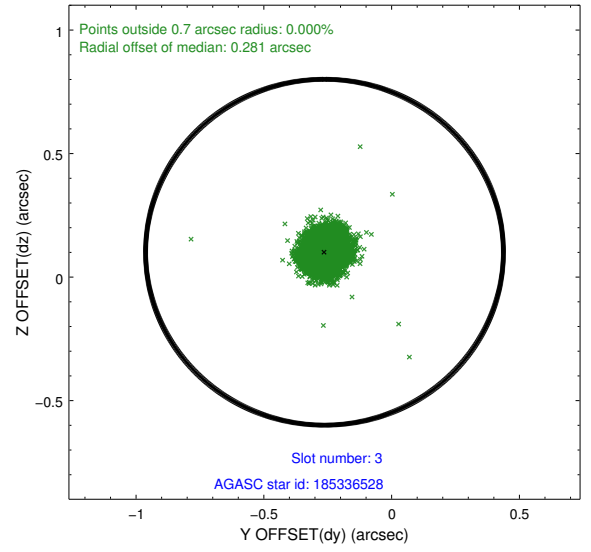
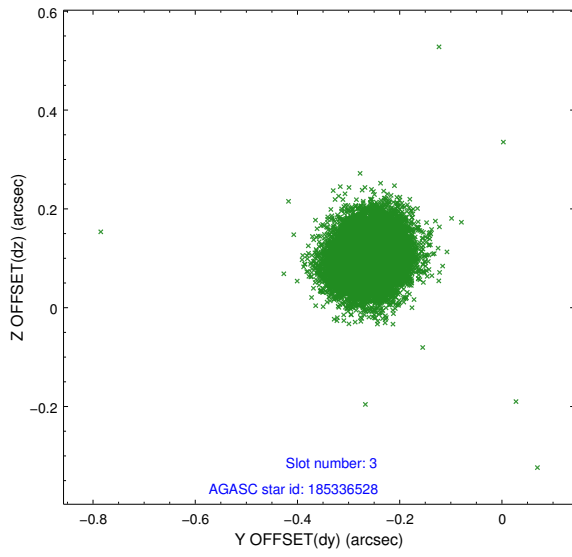


### Slot Statistics

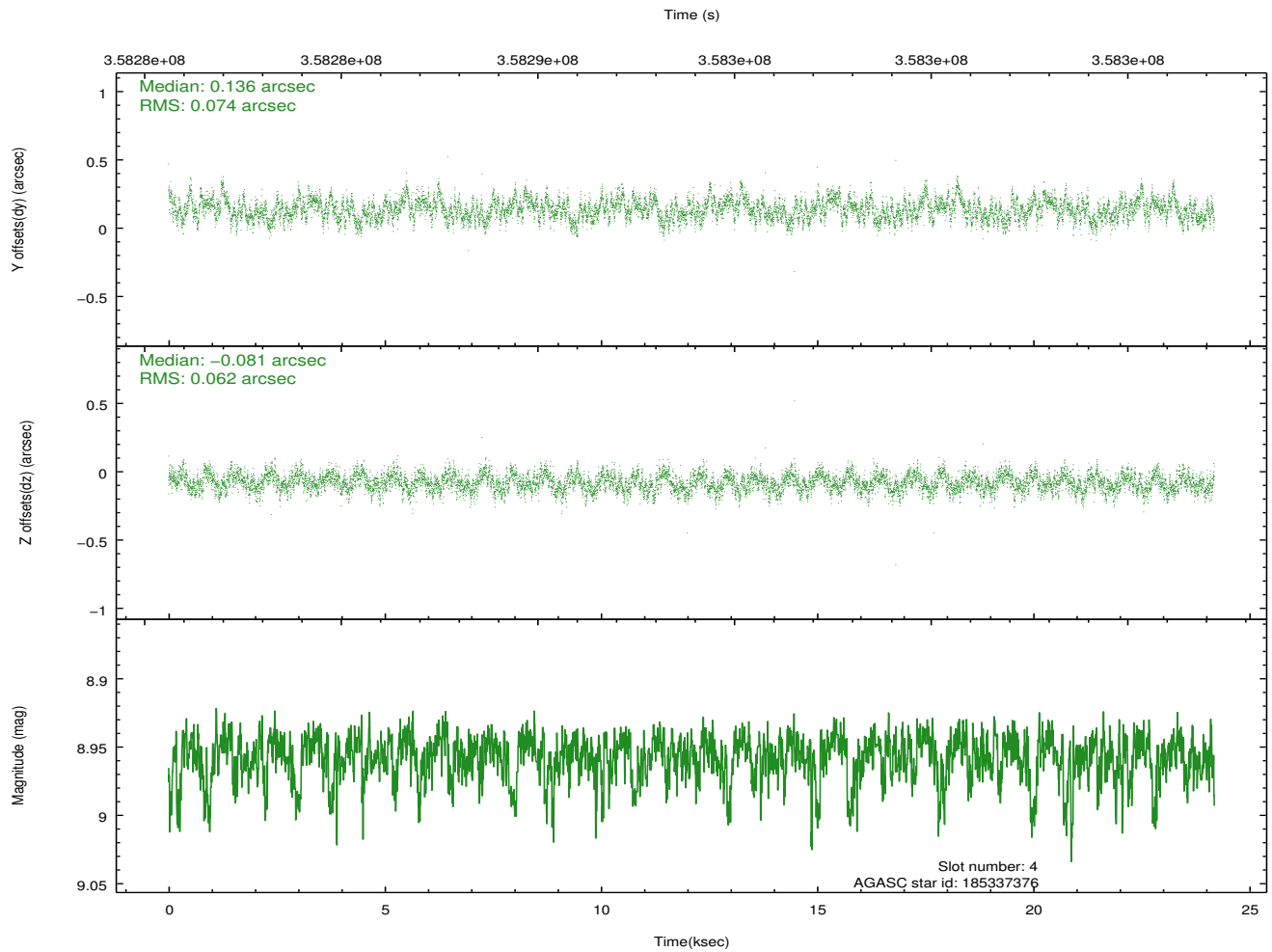
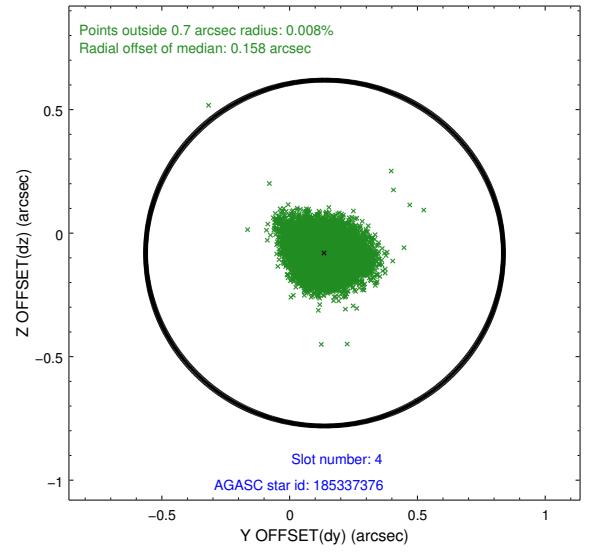
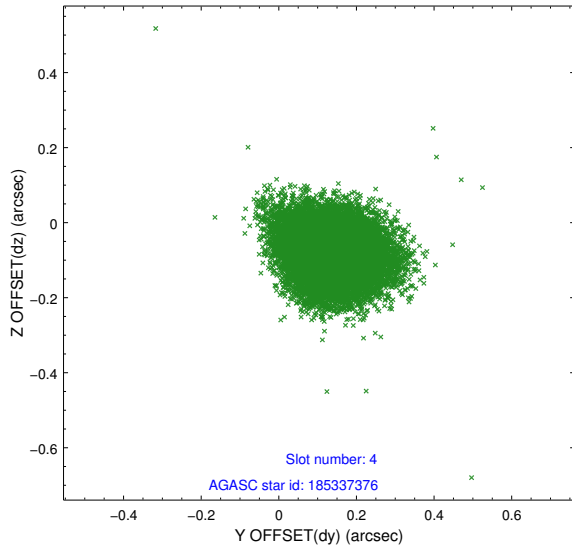
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.91	5899	-0.070	-0.019	0.008	0.013	0.000000	0.000000	-766.90	-1736.75
1	FID	ACIS-S-4	6.99	5900	0.197	0.039	0.006	0.012	0.000000	0.000000	2146.55	171.70
2	FID	ACIS-S-5	7.02	5899	-0.158	-0.011	0.008	0.013	0.000000	0.000000	-1819.70	165.40
3	GUIDE	185336528	8.20	11797	-0.263	0.101	0.061	0.097	148.892720	18.821206	-2258.89	-610.34
4	GUIDE	185337376	8.96	11779	0.136	-0.081	0.102	0.162	148.106056	17.934285	1547.54	-2321.93
5	GUIDE	185337696	8.61	11796	-0.270	-0.146	0.096	0.154	148.432118	18.944409	-2255.12	-2241.51
6	GUIDE	185339440	8.60	11787	0.138	0.107	0.060	0.098	148.983258	17.541515	2083.90	958.08
7	GUIDE	185342864	9.38	11784	0.259	0.022	0.115	0.186	148.362201	17.656961	2269.44	-1205.04

## 2.4 Star Slots

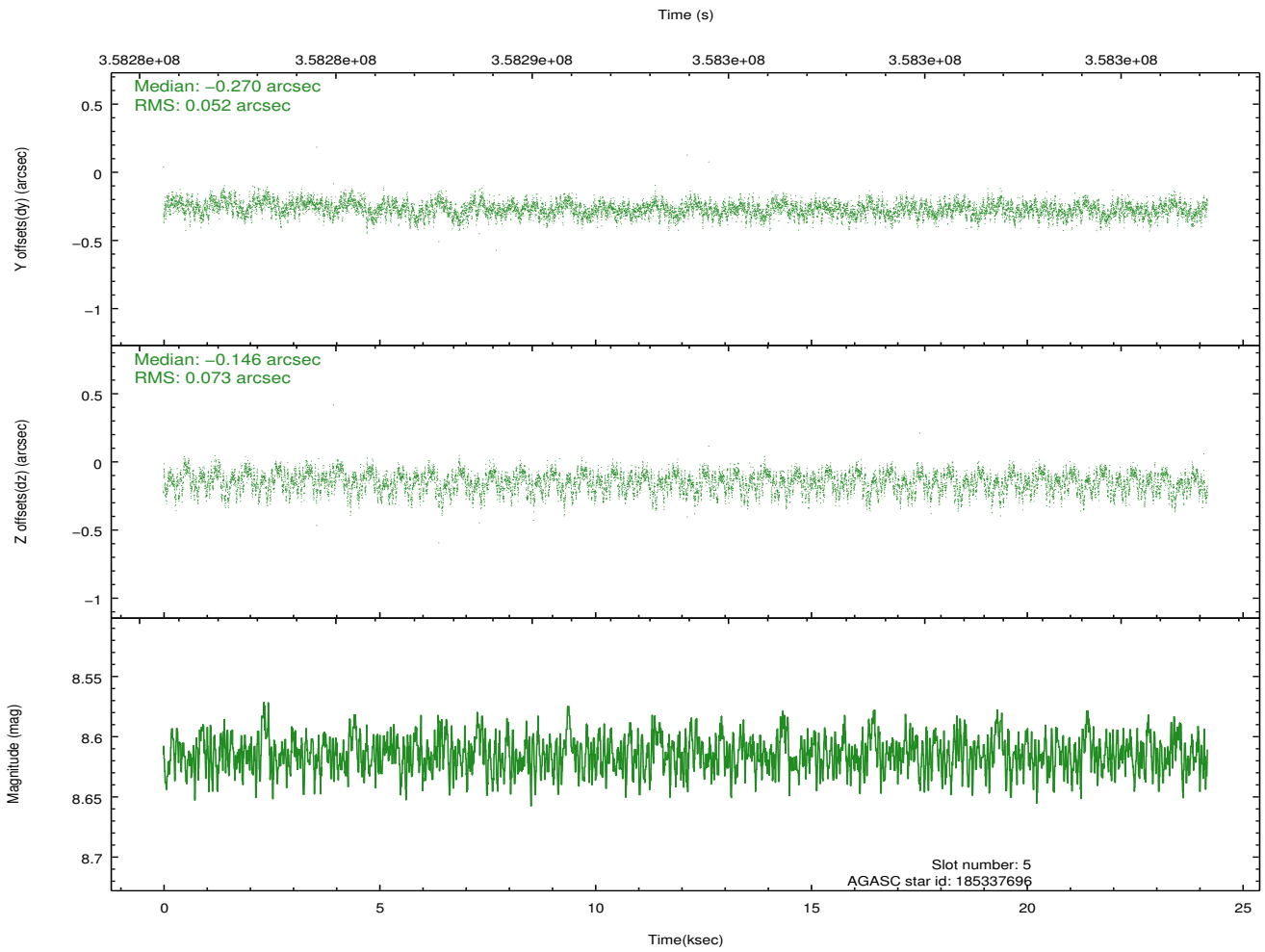
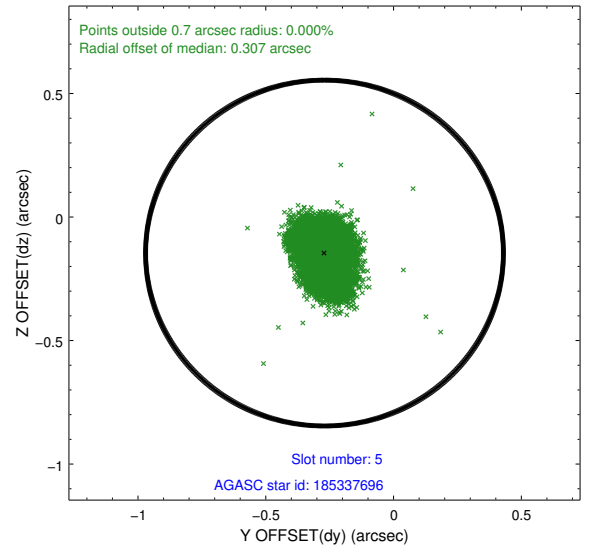
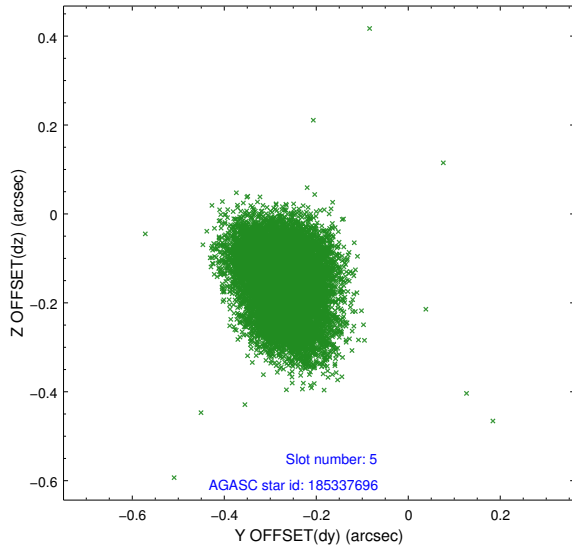
### 2.4.1 Slot 3



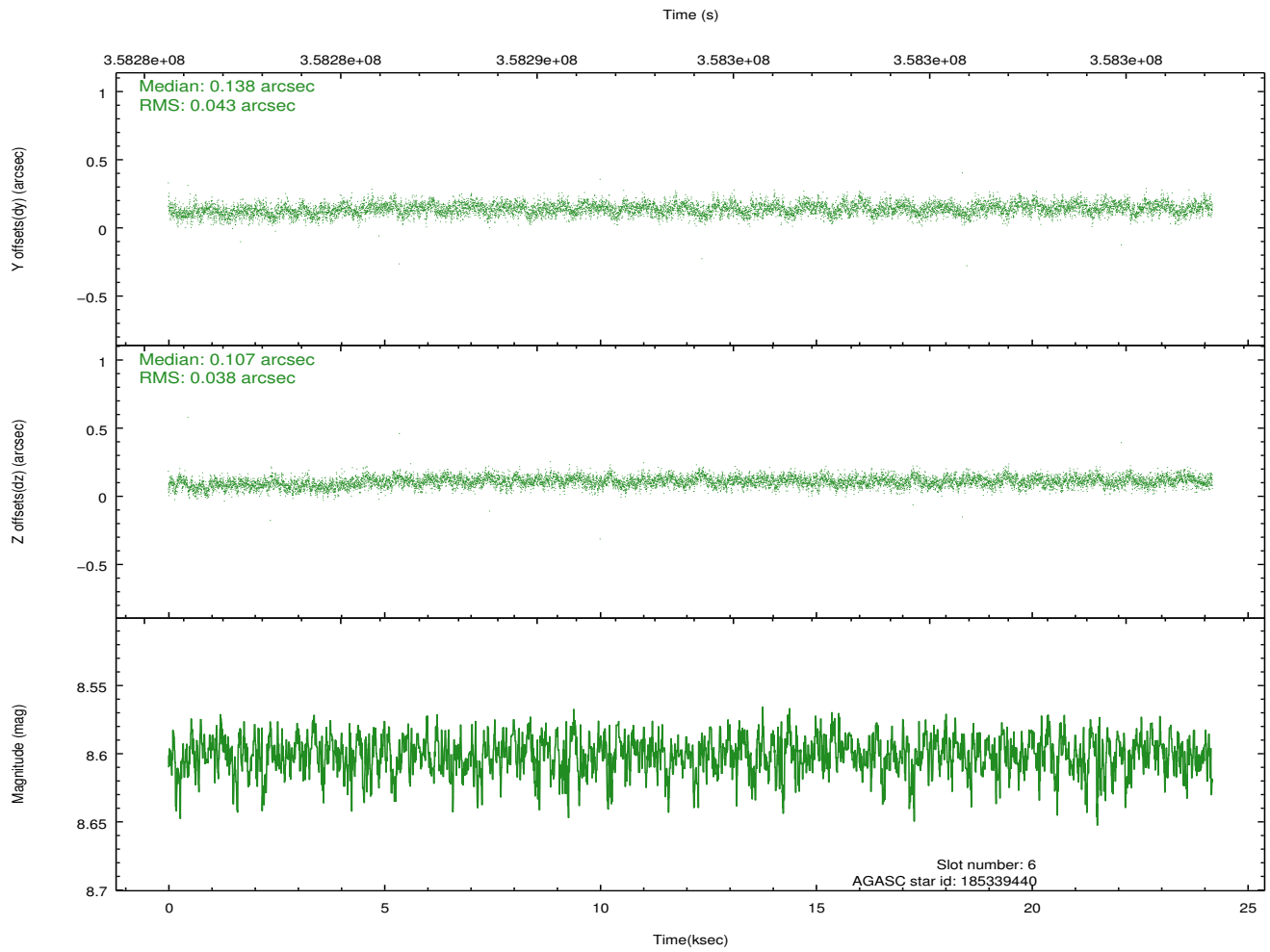
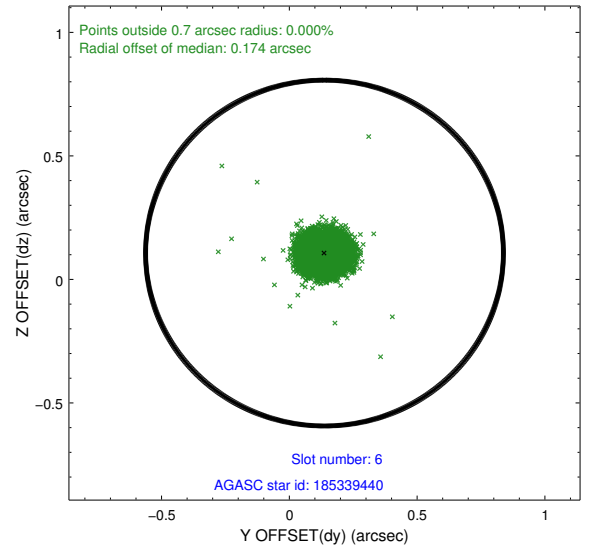
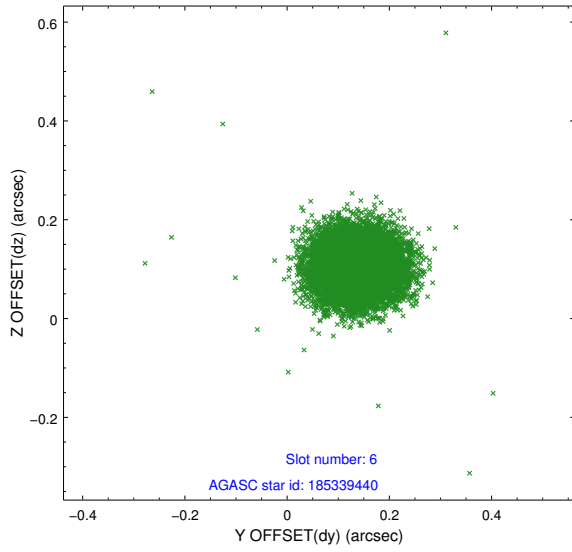
## 2.4.2 Slot 4



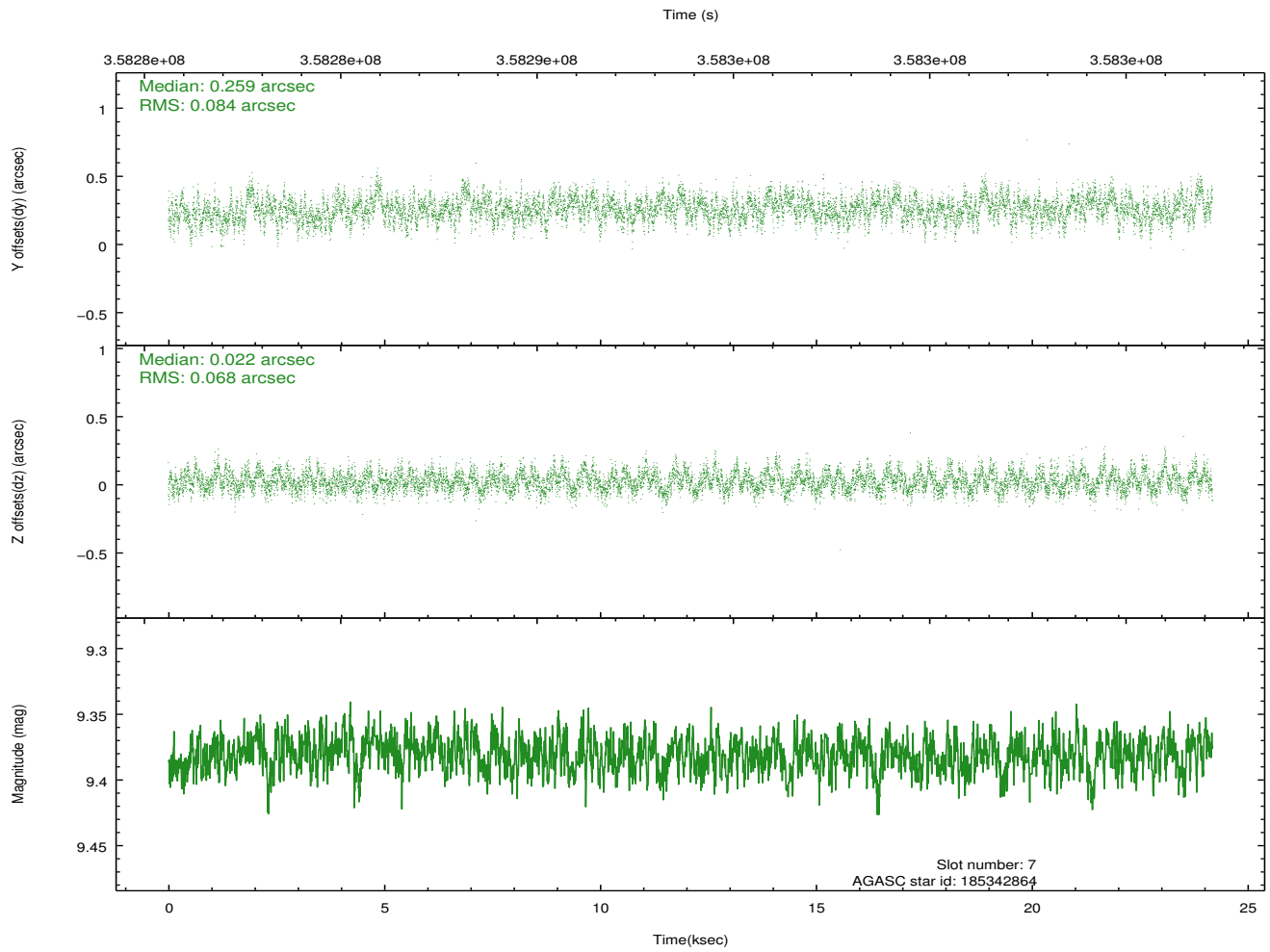
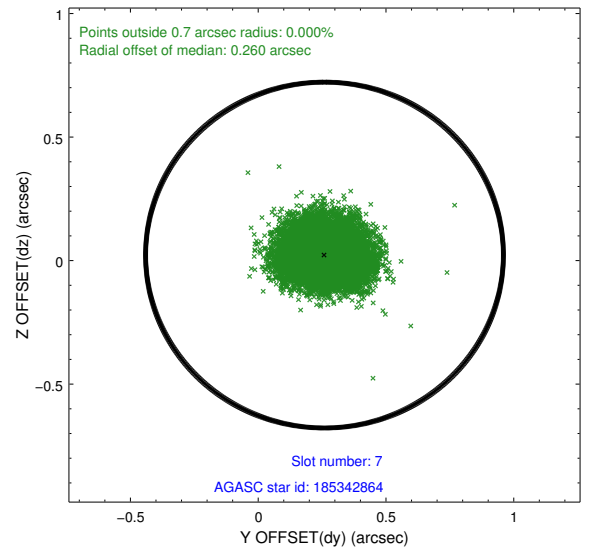
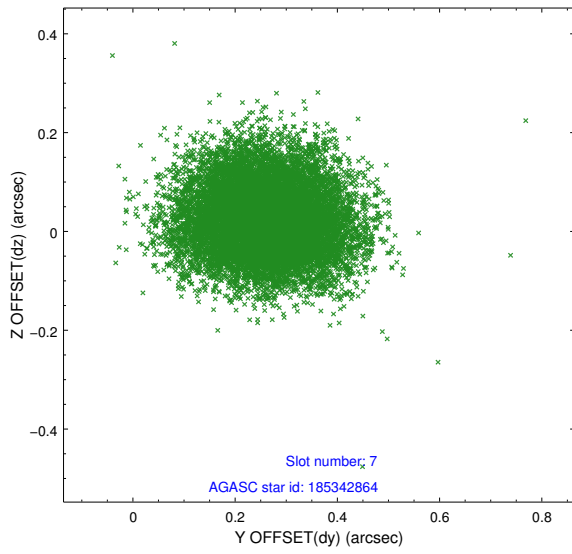
### 2.4.3 Slot 5



## 2.4.4 Slot 6

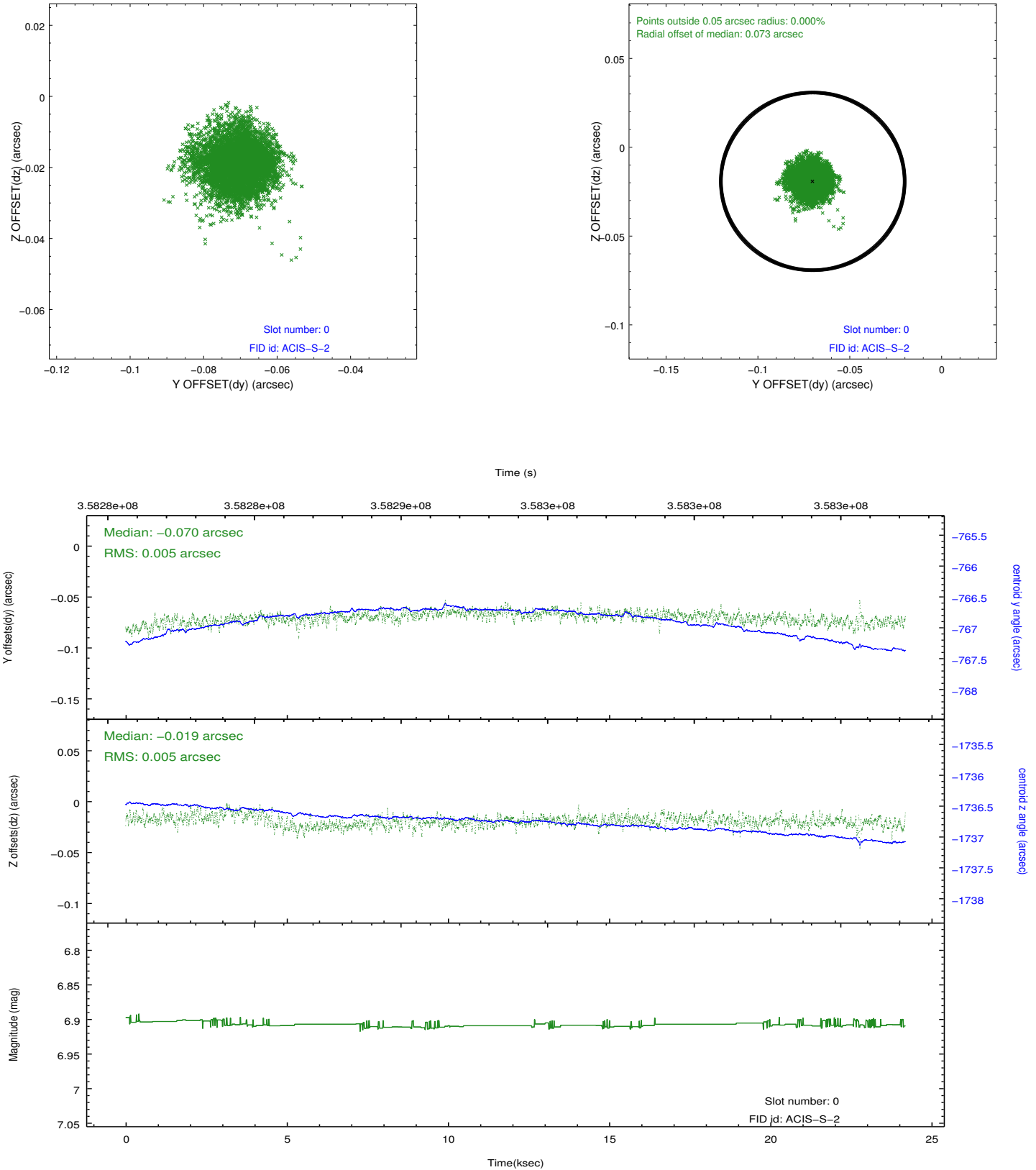


## 2.4.5 Slot 7

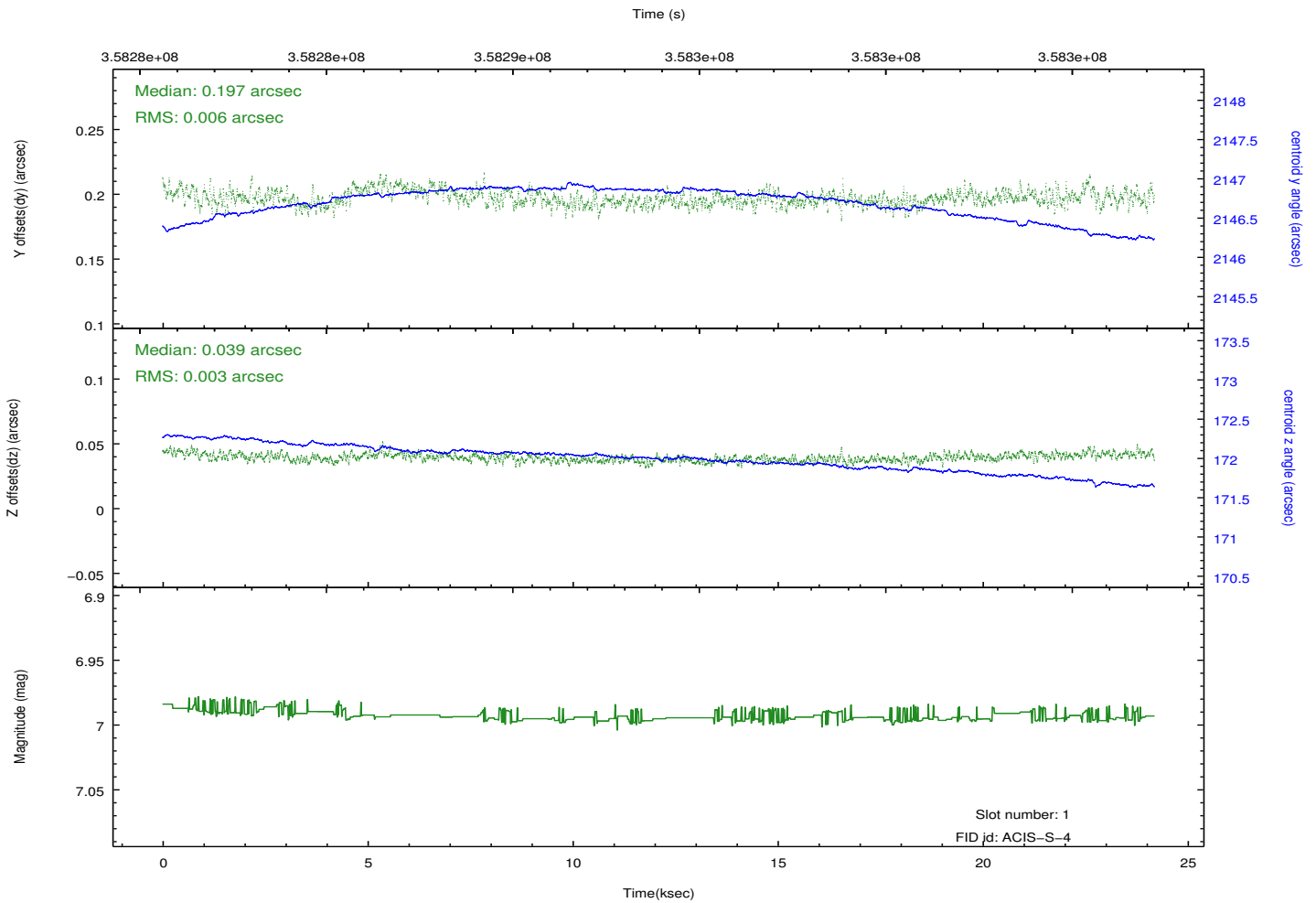
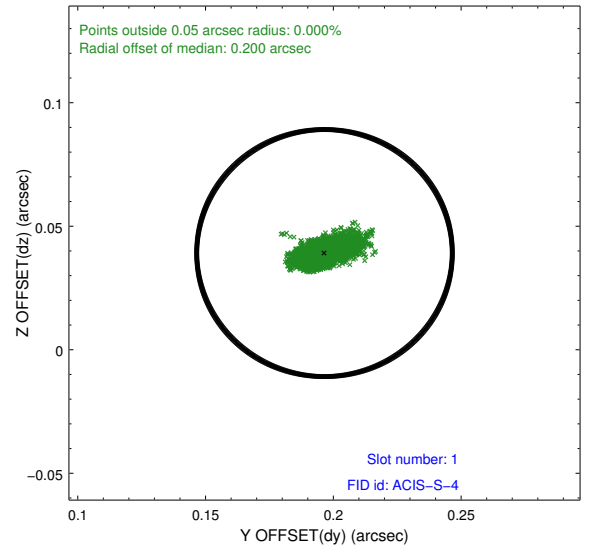
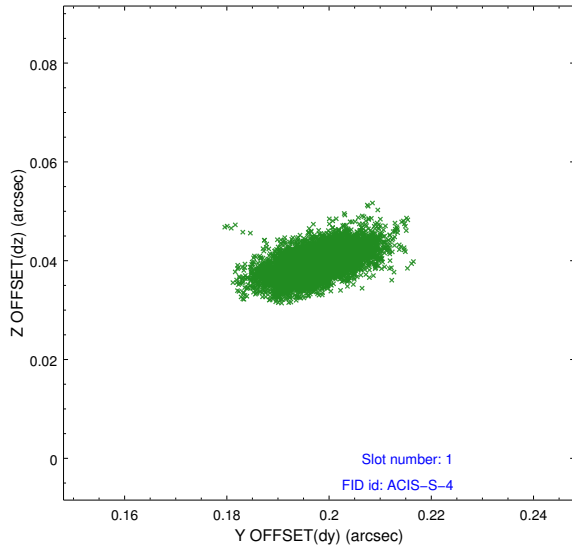


## 2.5 FID Slots

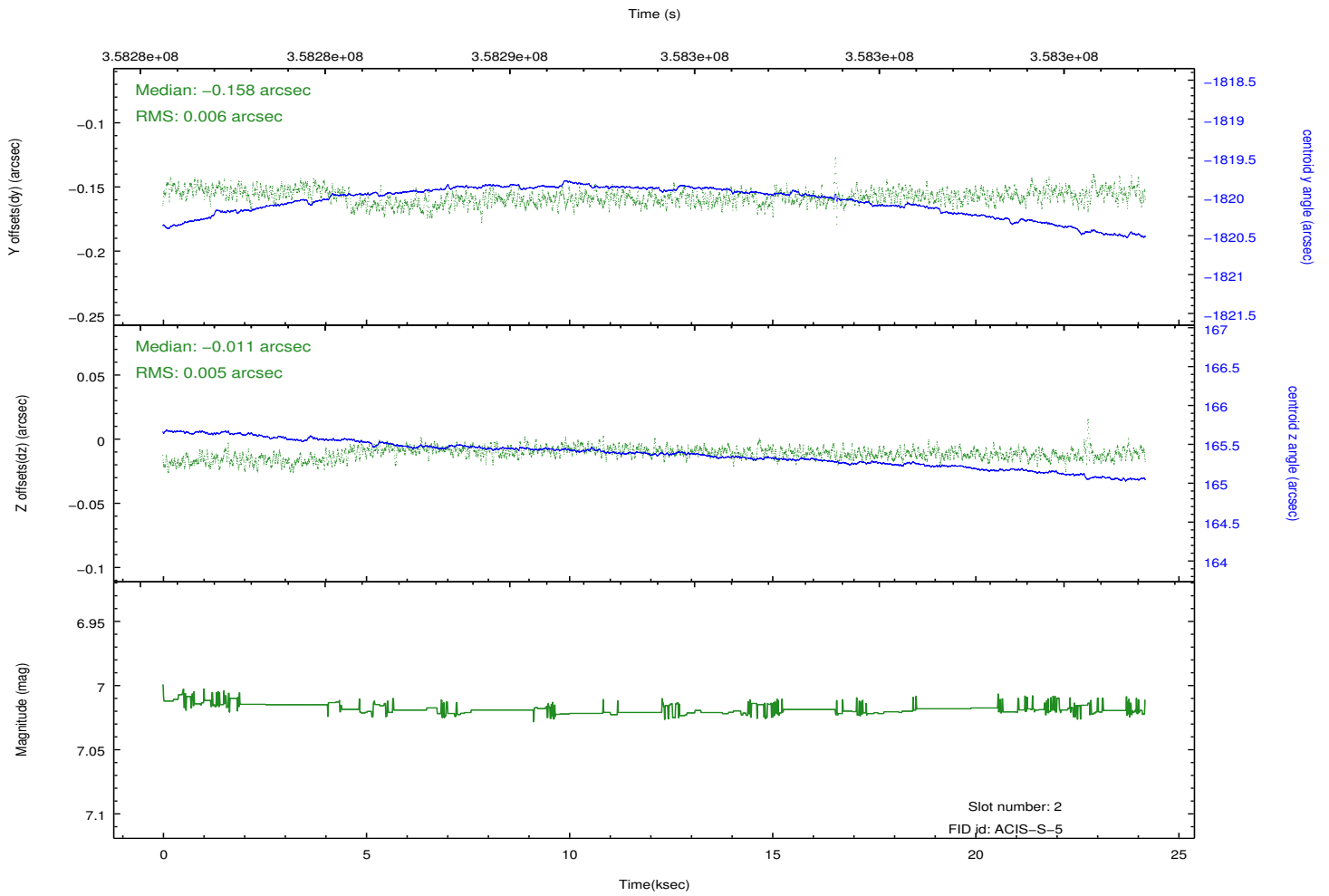
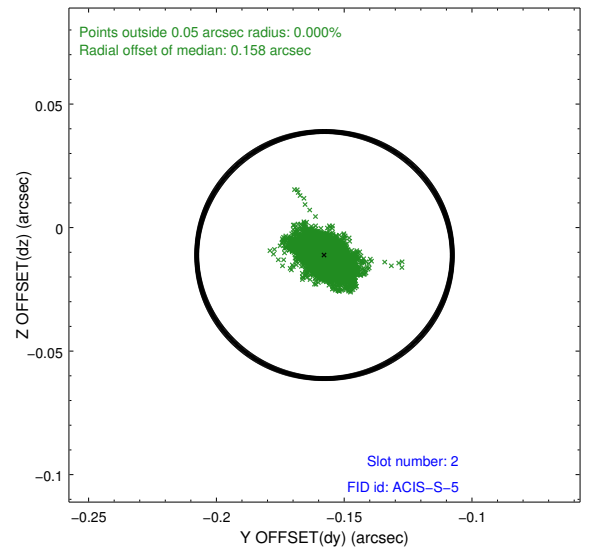
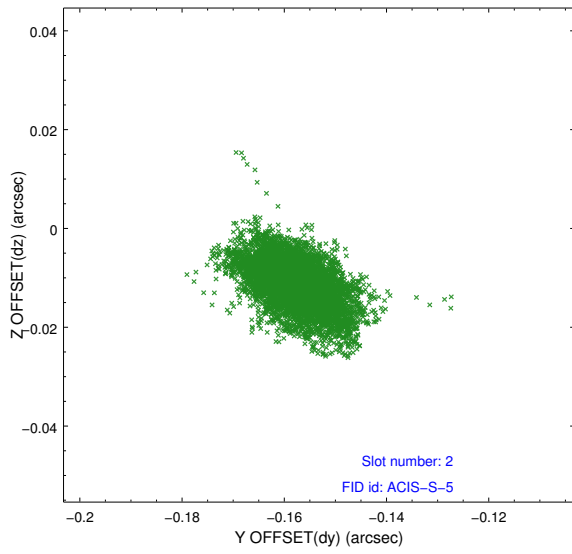
### 2.5.1 Slot 0



## 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)	2012.06.11
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	23.0367999

## A.2 Comments