

# V&V Reference Report

## L2 ASCDS Version : 10.3.1

Observation 17093 - L2 Version 1  
Chandra X-Ray Center

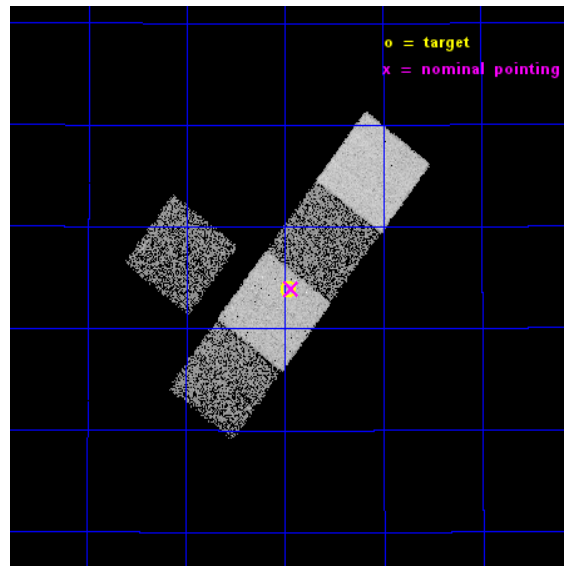
L2 Processing Date : Jan 5 2015

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# 1 Front

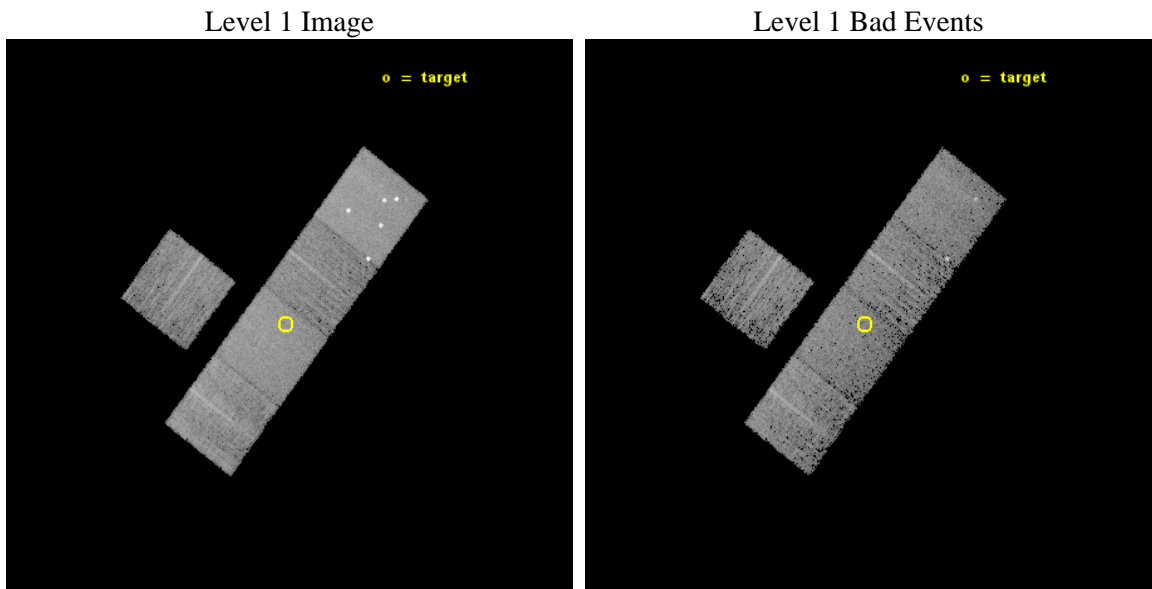
seq_num	703097	Sequence number
obs_id	17093	Observation id
title	Probing the Physics of Quasar Outflows using Mini-LoBALs	Proposal
observer	Professor Karen Leighly	Principal investigator
object	SDSS J085357.87+463350.6	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	133.49125	Observer's specified target RA [deg]
dec_targ	46.564167	Observer's specified target Dec [deg]
ra_nom	133.48359735234	Nominal RA [deg]
dec_nom	46.565468516117	Nominal Dec [deg]
roll_nom	127.27103815168	Nominal Roll [deg]
revision	1	Processing version of data
ontime	8562.2000658512	Sum of GTIs [s]
livetime	8450.3286185909	Livetime [s]
ontime3	8562.2000658512	Sum of GTIs [s]
ontime5	8562.2000658512	Sum of GTIs [s]
ontime6	8562.2000658512	Sum of GTIs [s]
ontime7	8562.2000658512	Sum of GTIs [s]
ontime8	8562.2000658512	Sum of GTIs [s]
l2events	67779	Number of level 2 events



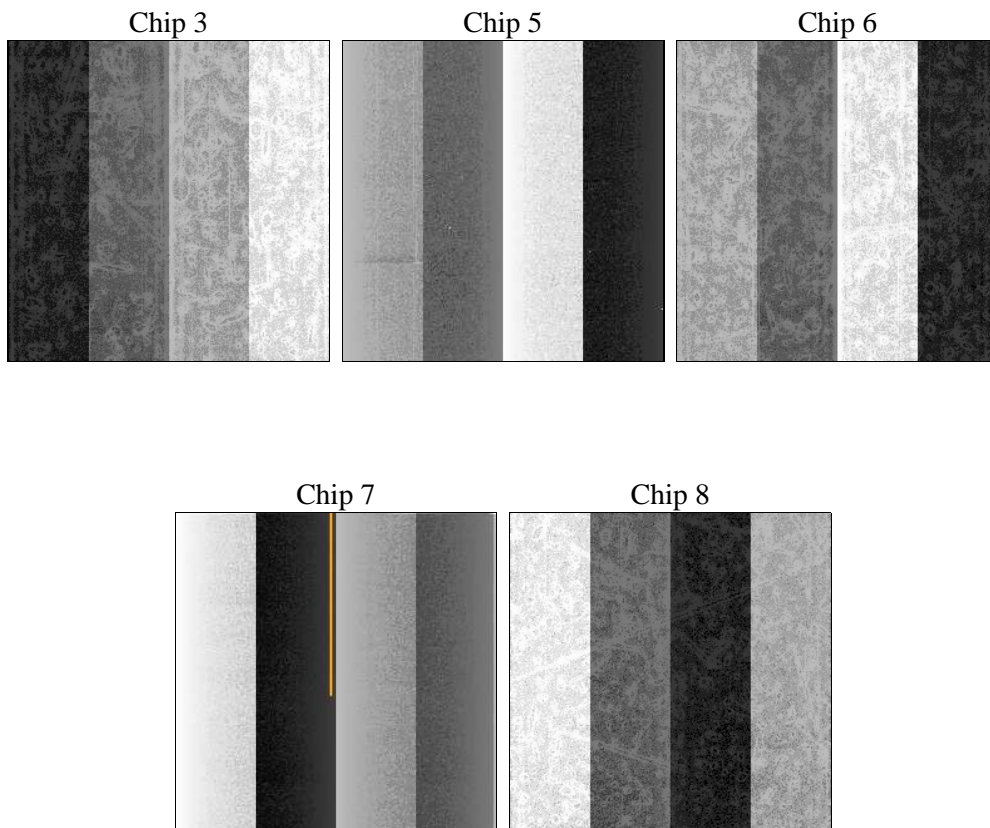
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8500.000000	[s] Scheduled observation exposure time
ascdsver	10.3.1	Processing system revision	ontime	8562.2000658512	Sum of GTIs [s]
caldbver	4.6.5	&#160	ontime3	8562.2000658512	Sum of GTIs [s]
date	2015-01-06T04:32:06	Date and time of file creation	ontime5	8562.2000658512	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	8562.2000658512	Sum of GTIs [s]
			ontime7	8562.2000658512	Sum of GTIs [s]
			ontime8	8562.2000658512	Sum of GTIs [s]
			l1events	269446	Number of level 1 events

### 2.1.4 Events

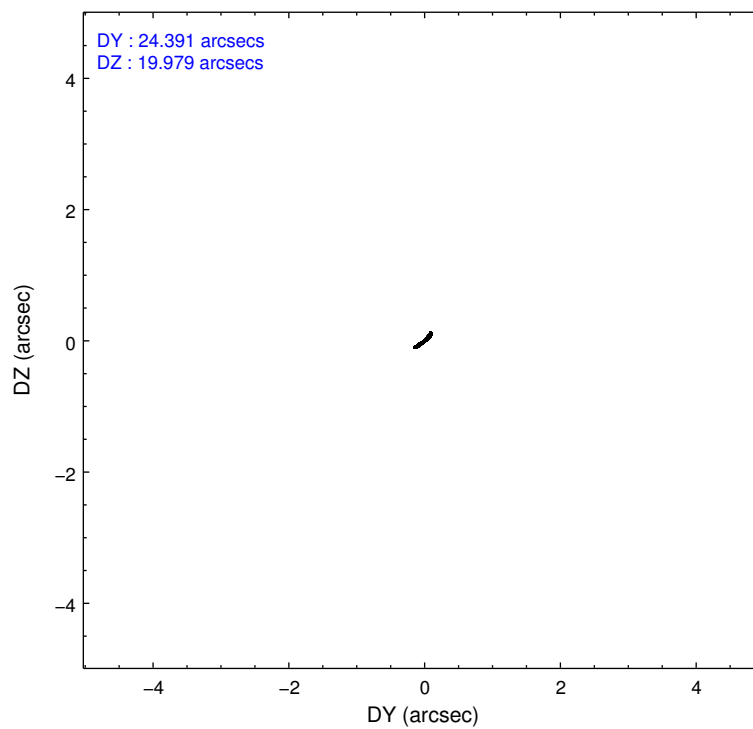
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	39935	80058	40387	56842	52224
rejected events	35562	36666	35212	32362	39040
rejected %	89%	45%	87%	56%	74%

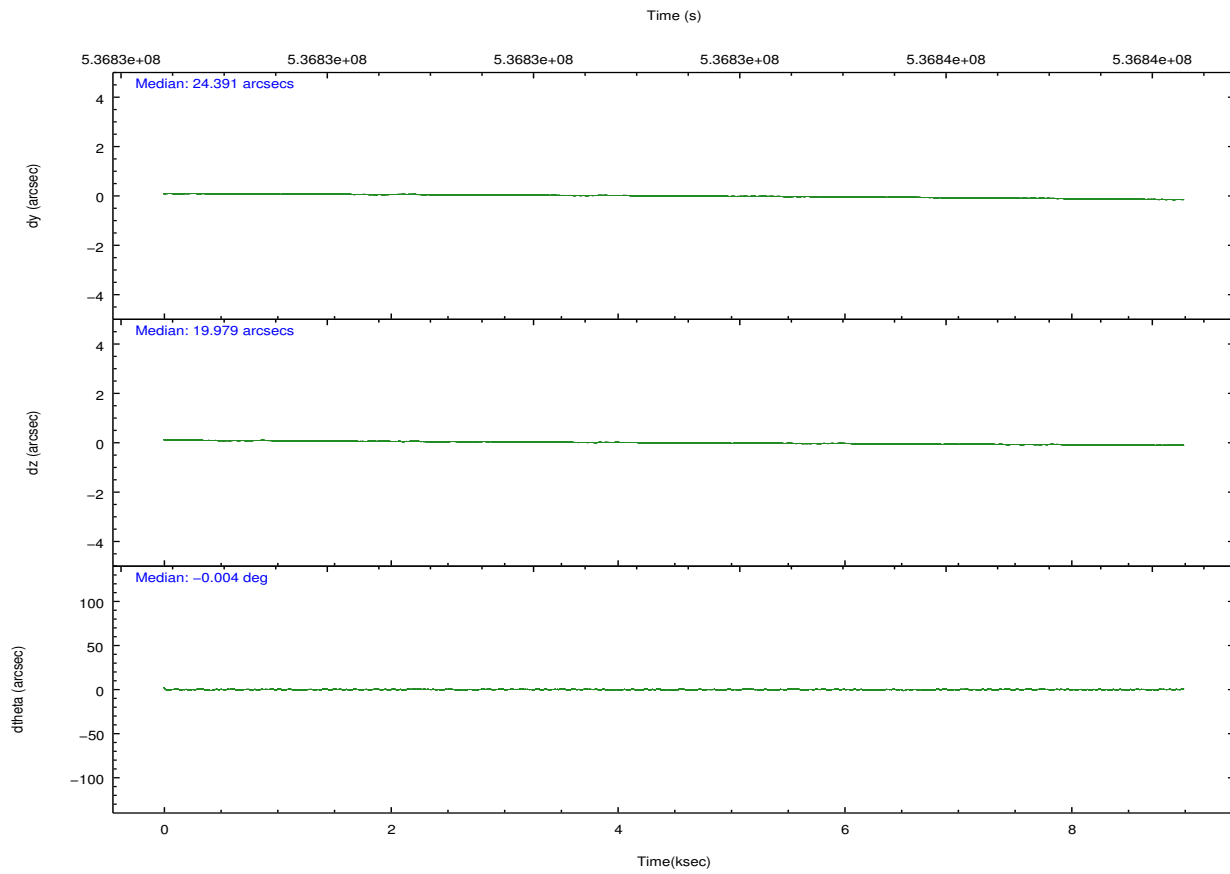
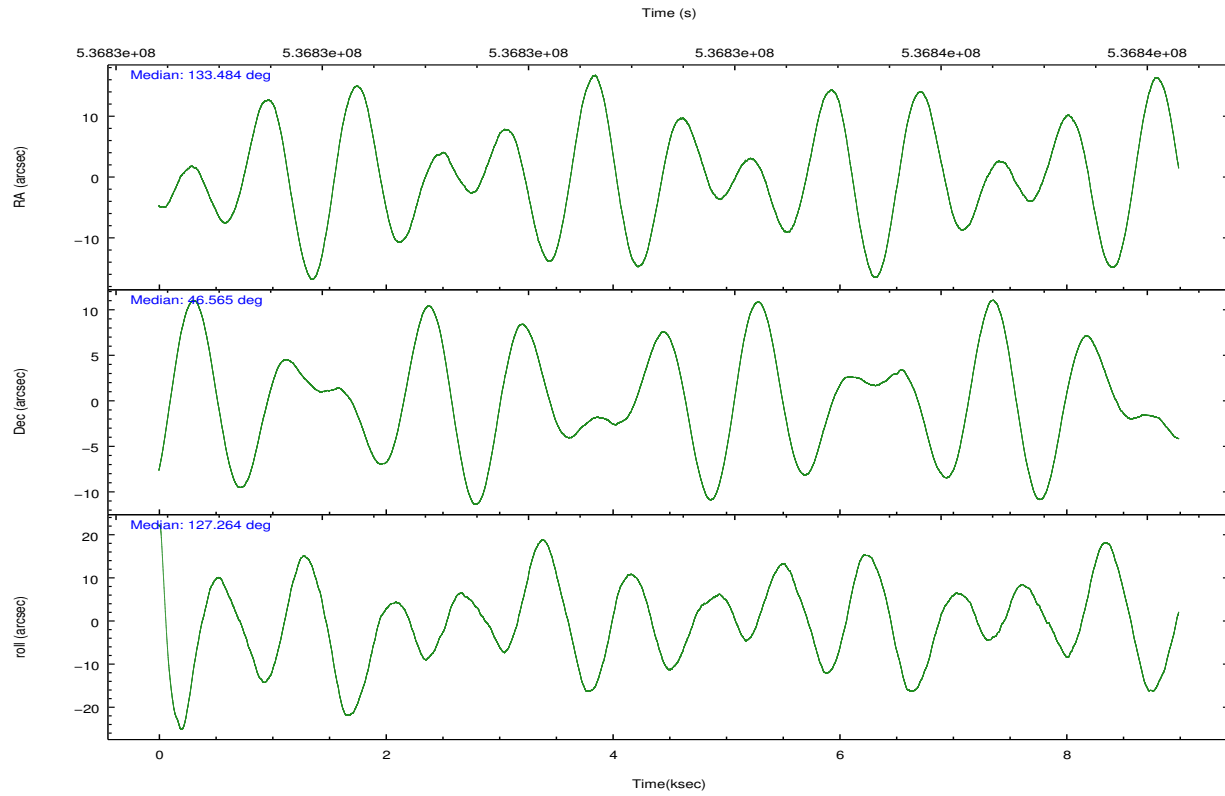
	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	1561	9846	1713	2175	3563
	3%	12%	4%	3%	6%
grade 1 events	30	568	21	76	38
	0%	0%	0%	0%	0%
grade 2 events	953	11950	1226	4907	3327
	2%	14%	3%	8%	6%
grade 3 events	451	1174	530	2006	1299
	1%	1%	1%	3%	2%
grade 4 events	500	1871	509	1970	1256
	1%	2%	1%	3%	2%
grade 5 events	2169	5272	2078	5631	3106
	5%	6%	5%	9%	5%
grade 6 events	912	18581	1199	13440	3746
	2%	23%	2%	23%	7%
grade 7 events	33359	30796	33111	26637	35889
	83%	38%	81%	46%	68%

## 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	133.520582	133.4835973523411	CCD I2 on	O1	N
[deg] Pointing Dec	46.555186	46.56546851611695	CCD I3 on	O2	Y
[deg] Pointing Roll	127.087560	127.2710381516828	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)	536829350.184000	536828257.77263	CCD S5 on	N	N
Observation start date	2015-01-05T07:14:43	2015-01-05T06:57:37	Number of optional ACIS chips dropped	1	1
[s] Observation end time (MET)	536837850.184000	536838075.73567	On-chip summing requested	N	N
Observation end date	2015-01-05T09:36:23	2015-01-05T09:41:15	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



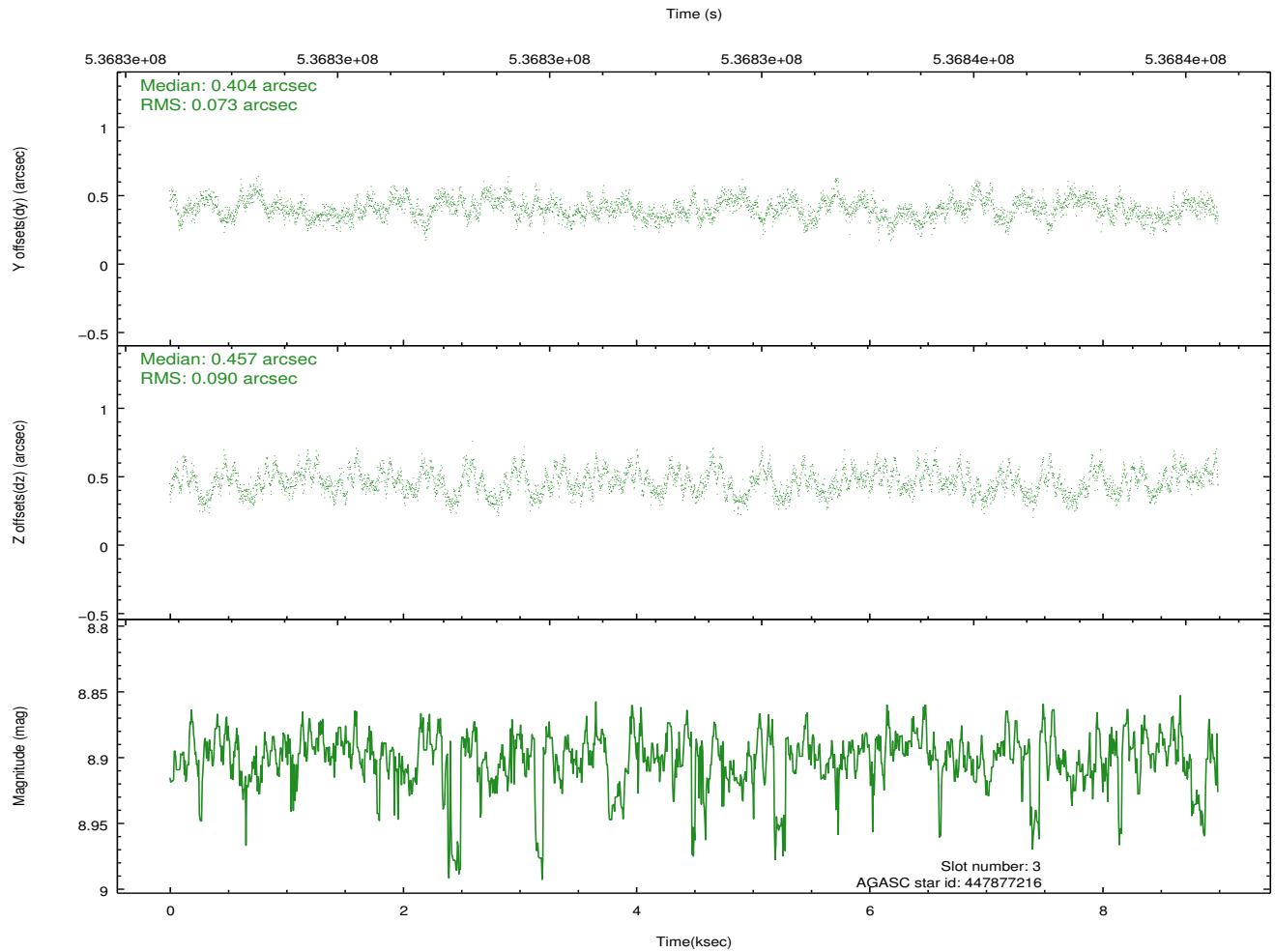
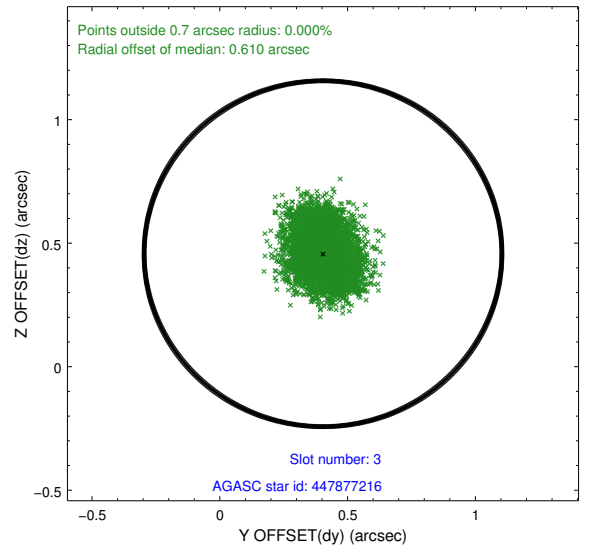
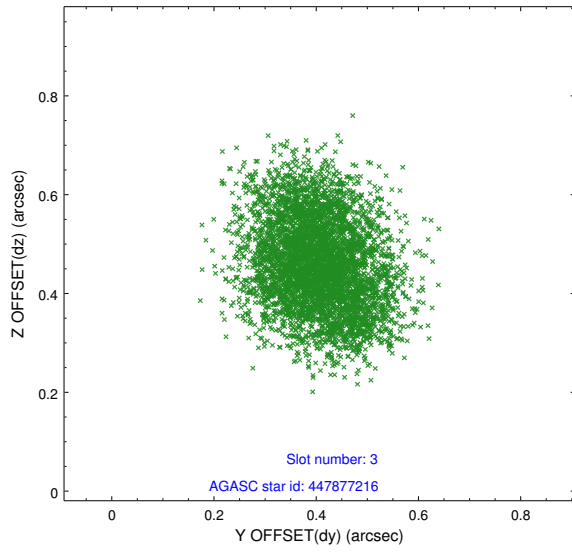


### Slot Statistics

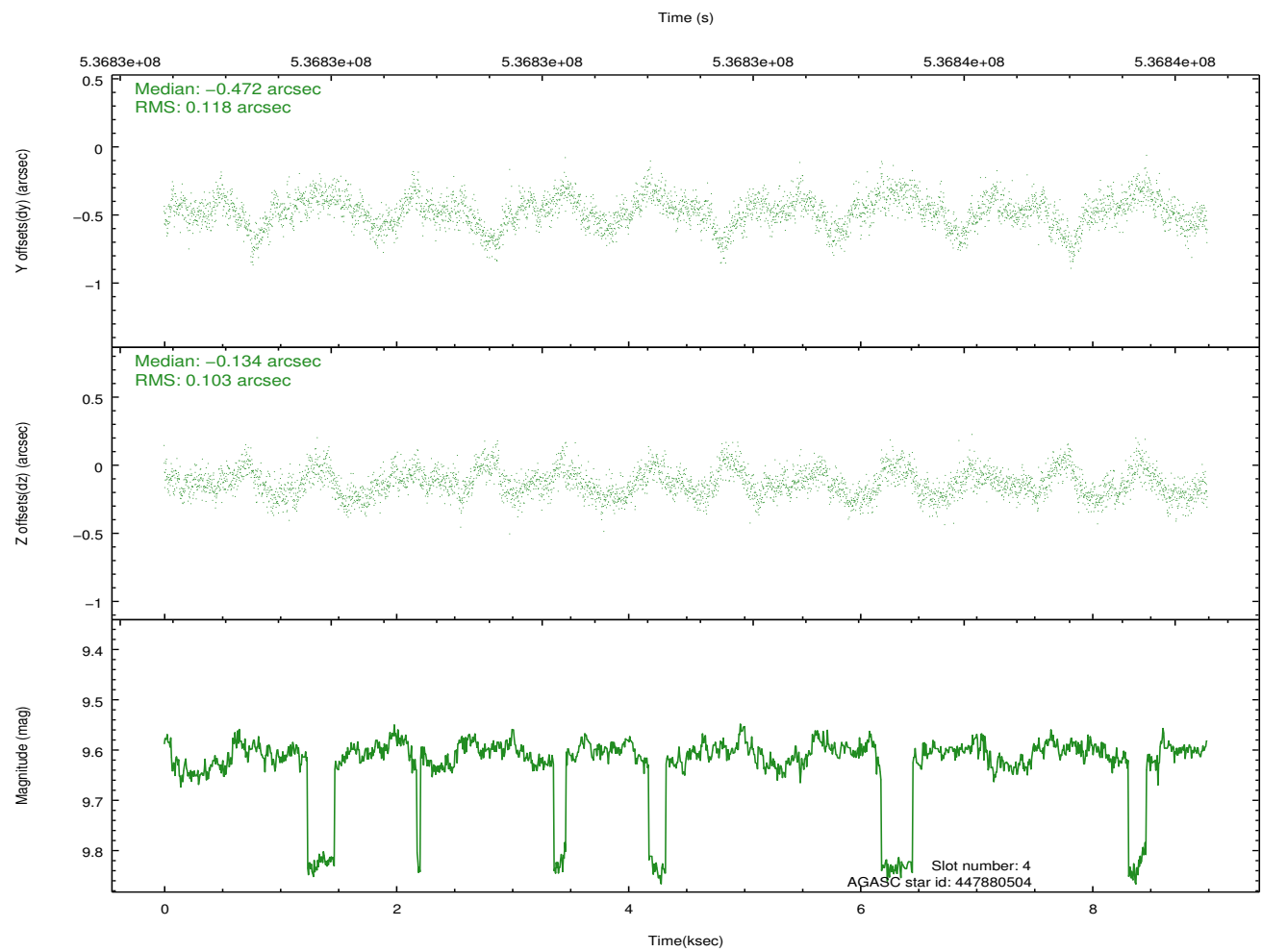
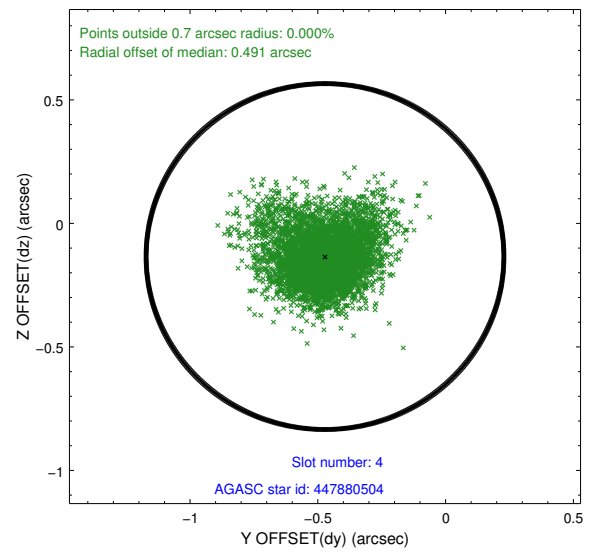
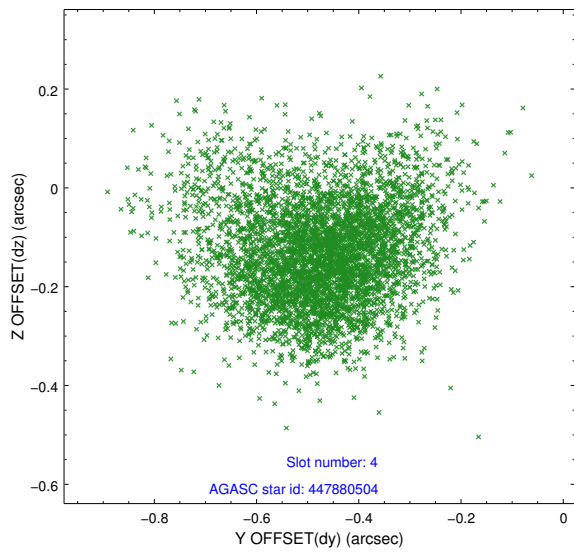
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.07	2193	-0.194	-0.048	0.007	0.012	0.000000	0.000000	-777.82	-1741.48
1	FID		ACIS-S-4	7.17	2193	0.370	0.106	0.005	0.010	0.000000	0.000000	2135.76	166.50
2	FID		ACIS-S-5	7.18	2193	-0.208	-0.050	0.007	0.013	0.000000	0.000000	-1829.88	160.74
3	GUIDE	used	447877216	8.90	4386	0.404	0.457	0.127	0.194	134.537983	46.348309	-2104.93	-1575.83
4	GUIDE	used	447880504	9.61	4385	-0.472	-0.134	0.163	0.279	132.452697	46.828991	2385.73	1492.97
5	GUIDE	used	447881368	9.31	4380	-0.031	-0.022	0.131	0.208	133.442394	47.312336	2290.48	-1490.68
6	GUIDE	used	447882032	8.98	4382	0.020	-0.015	0.108	0.175	133.538318	46.860073	850.44	-696.12
7	GUIDE	used	447885496	9.54	4313	0.082	-0.287	0.168	0.294	133.032266	46.105965	-552.26	1945.02

## 2.4 Star Slots

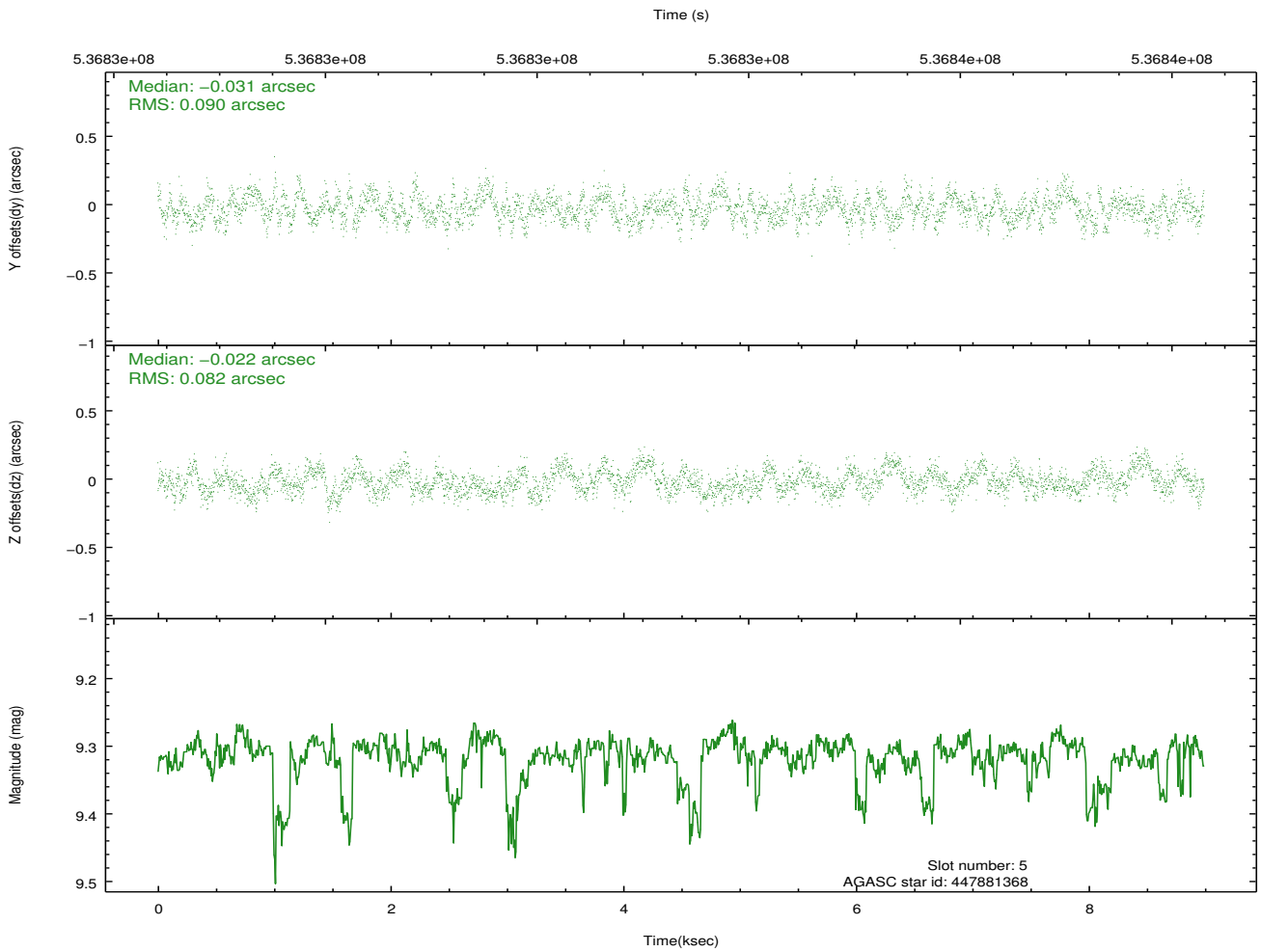
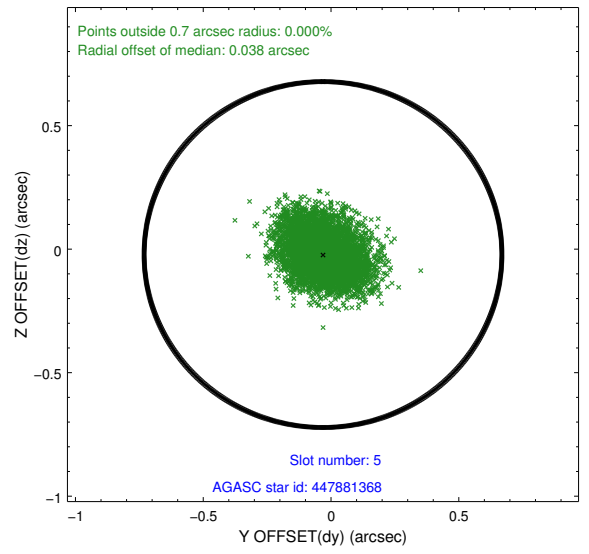
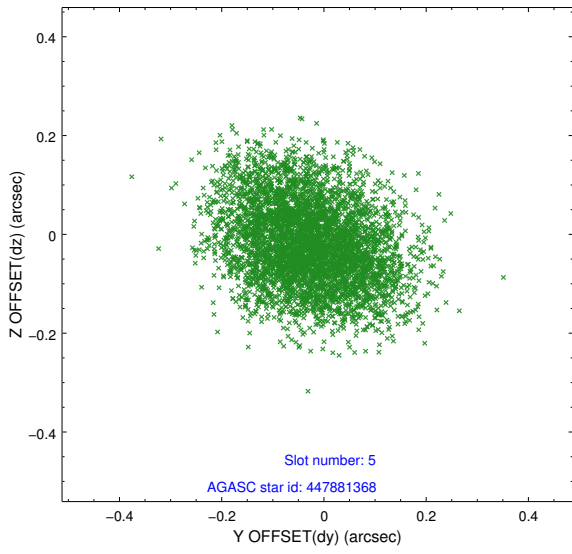
### 2.4.1 Slot 3



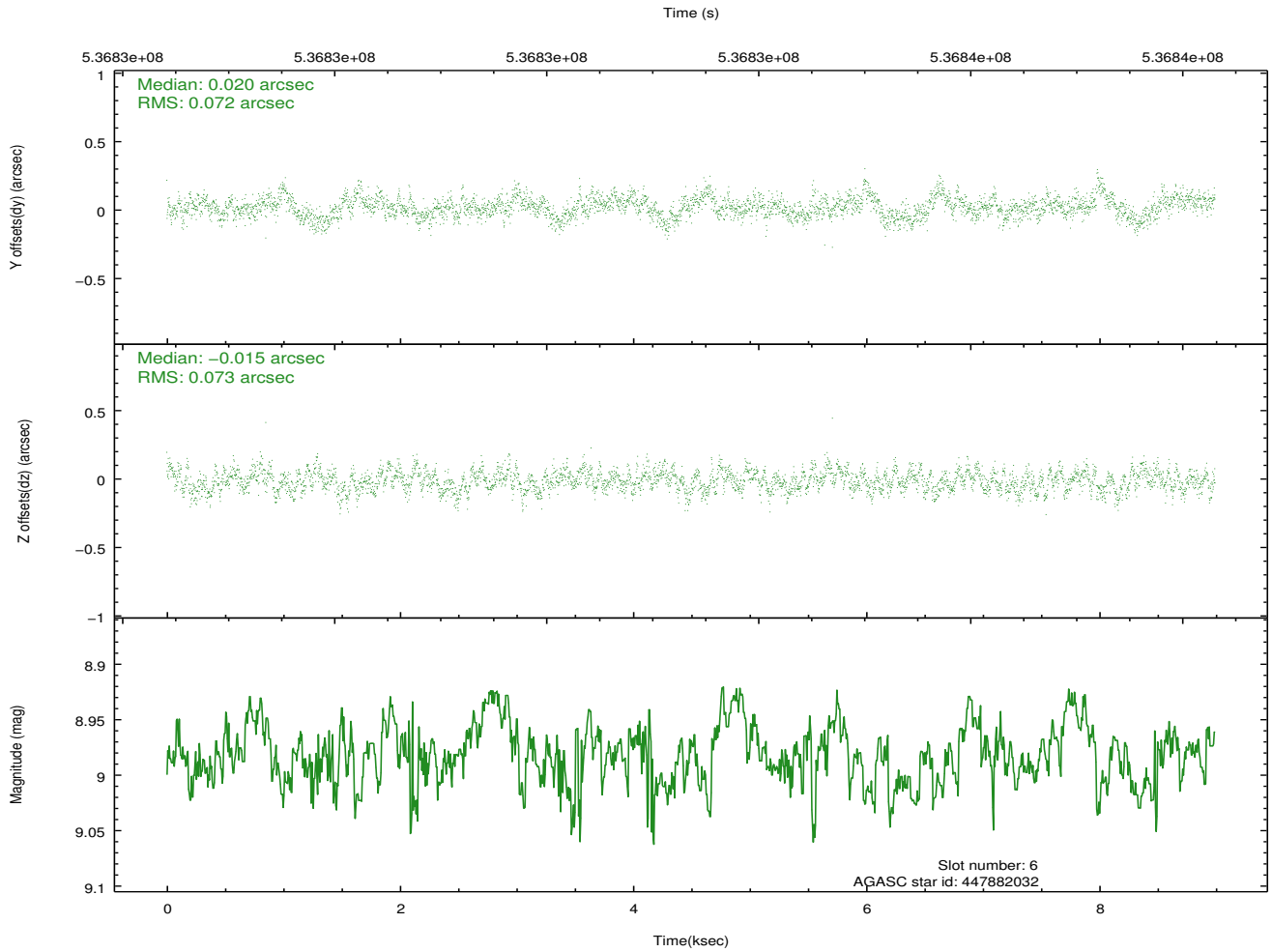
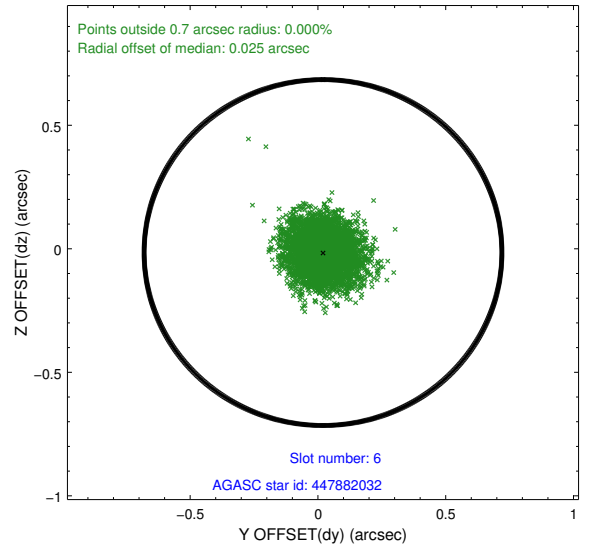
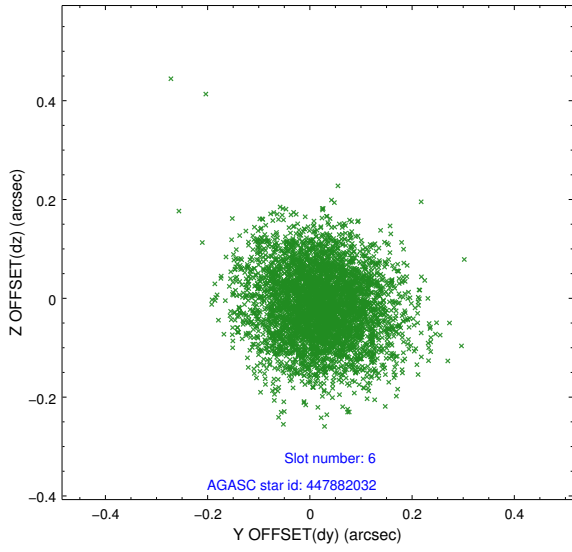
## 2.4.2 Slot 4



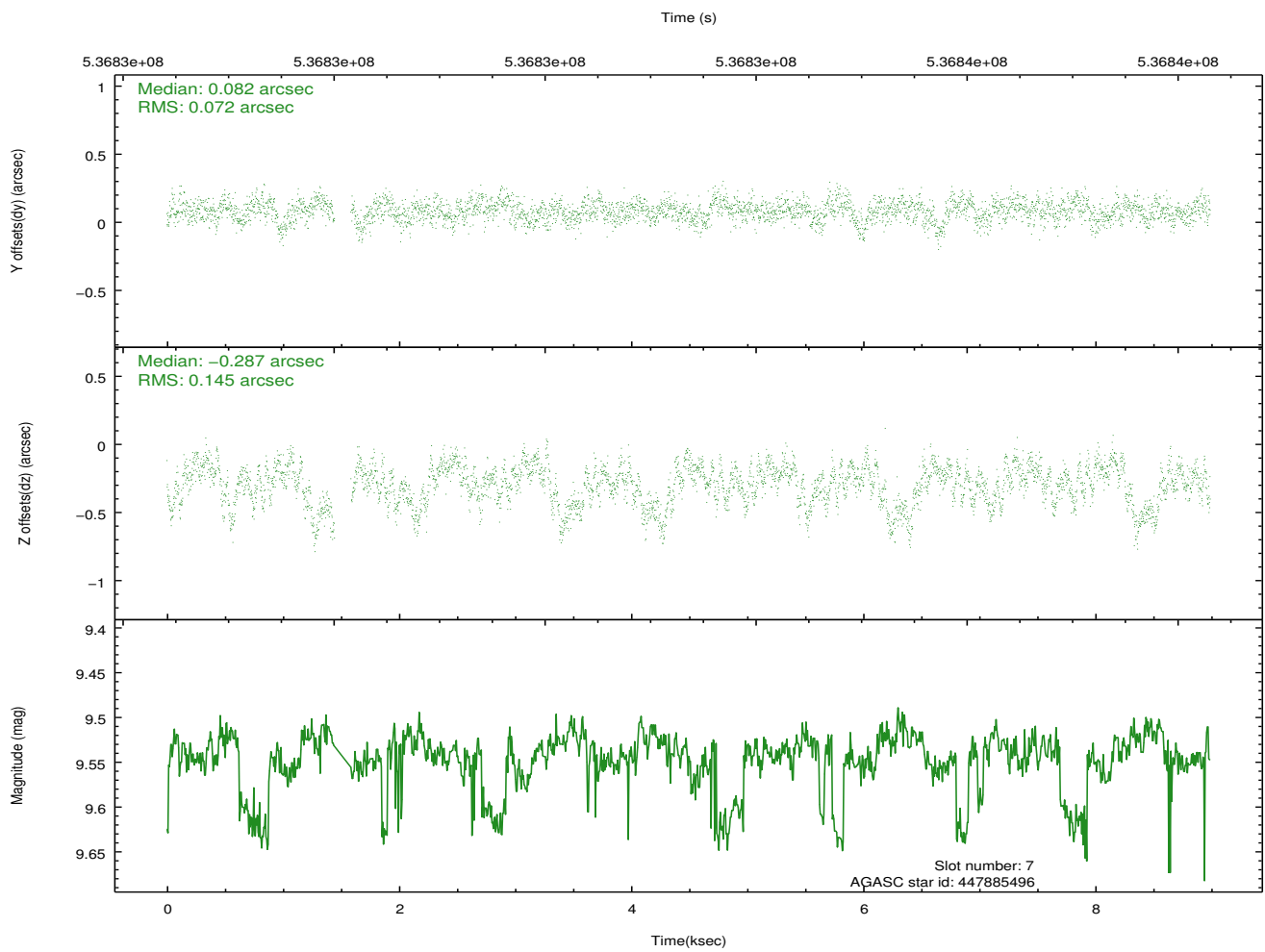
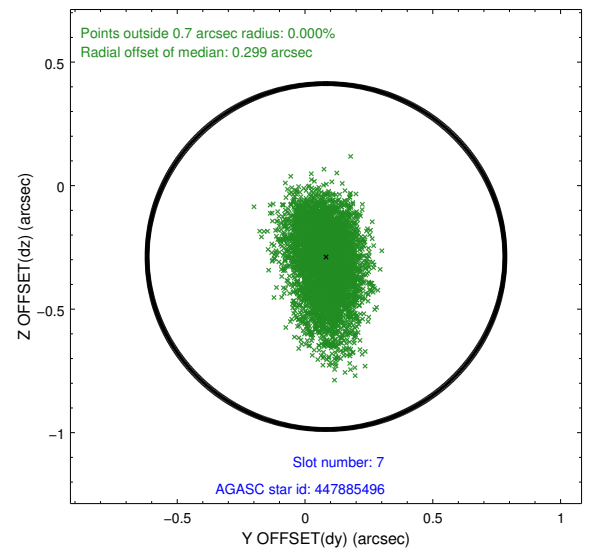
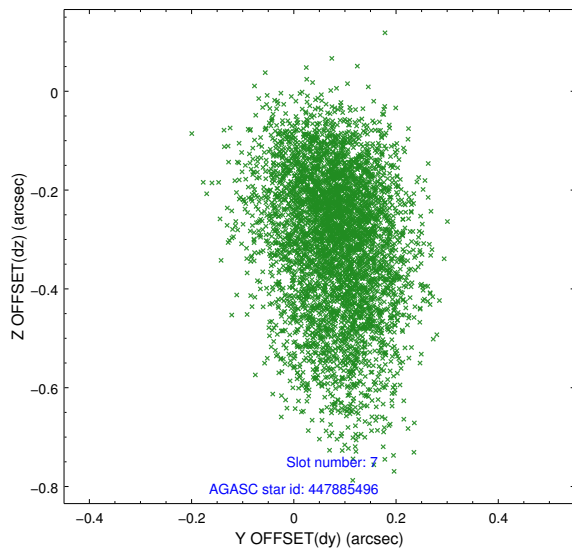
### 2.4.3 Slot 5



### 2.4.4 Slot 6

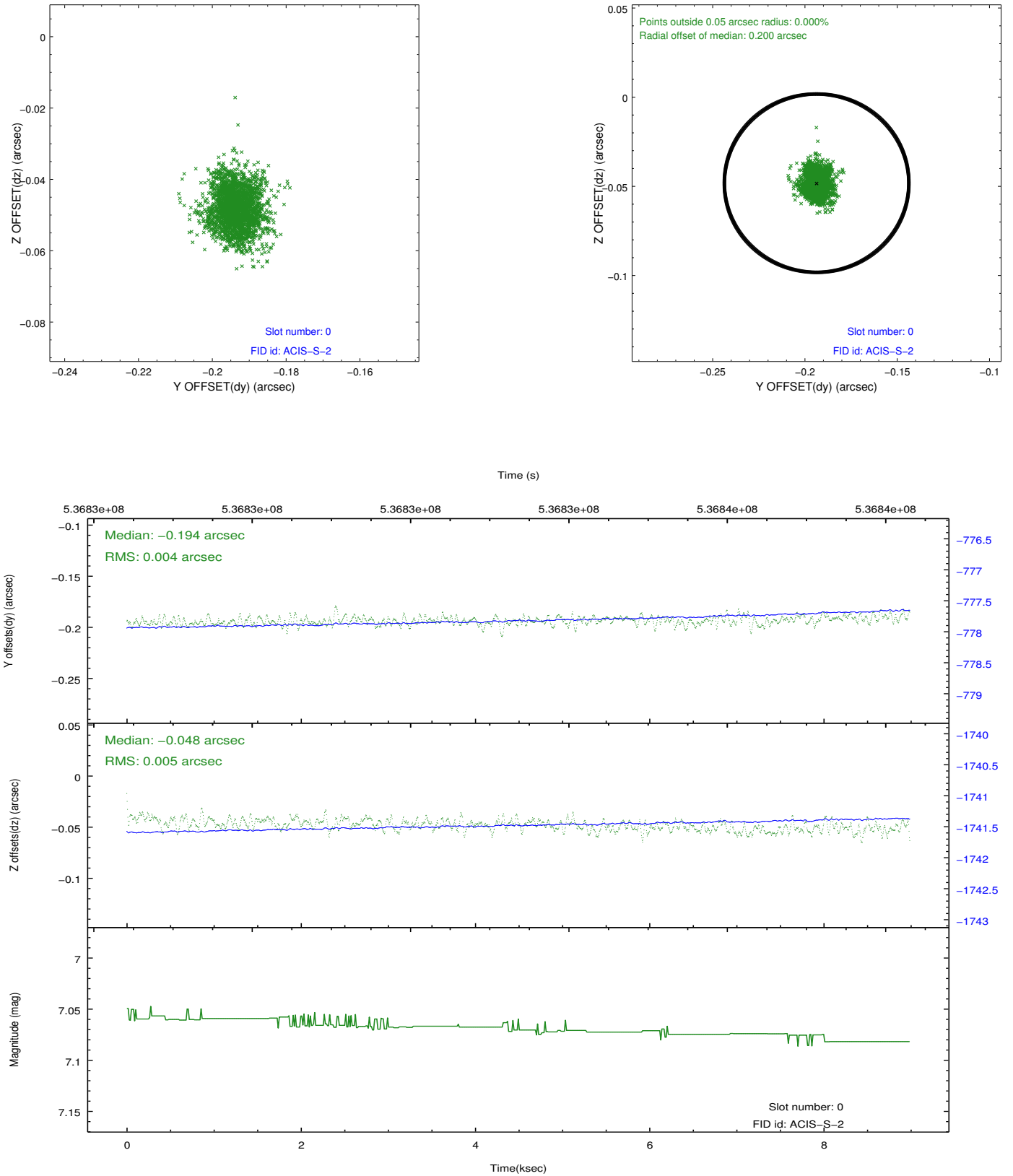


## 2.4.5 Slot 7

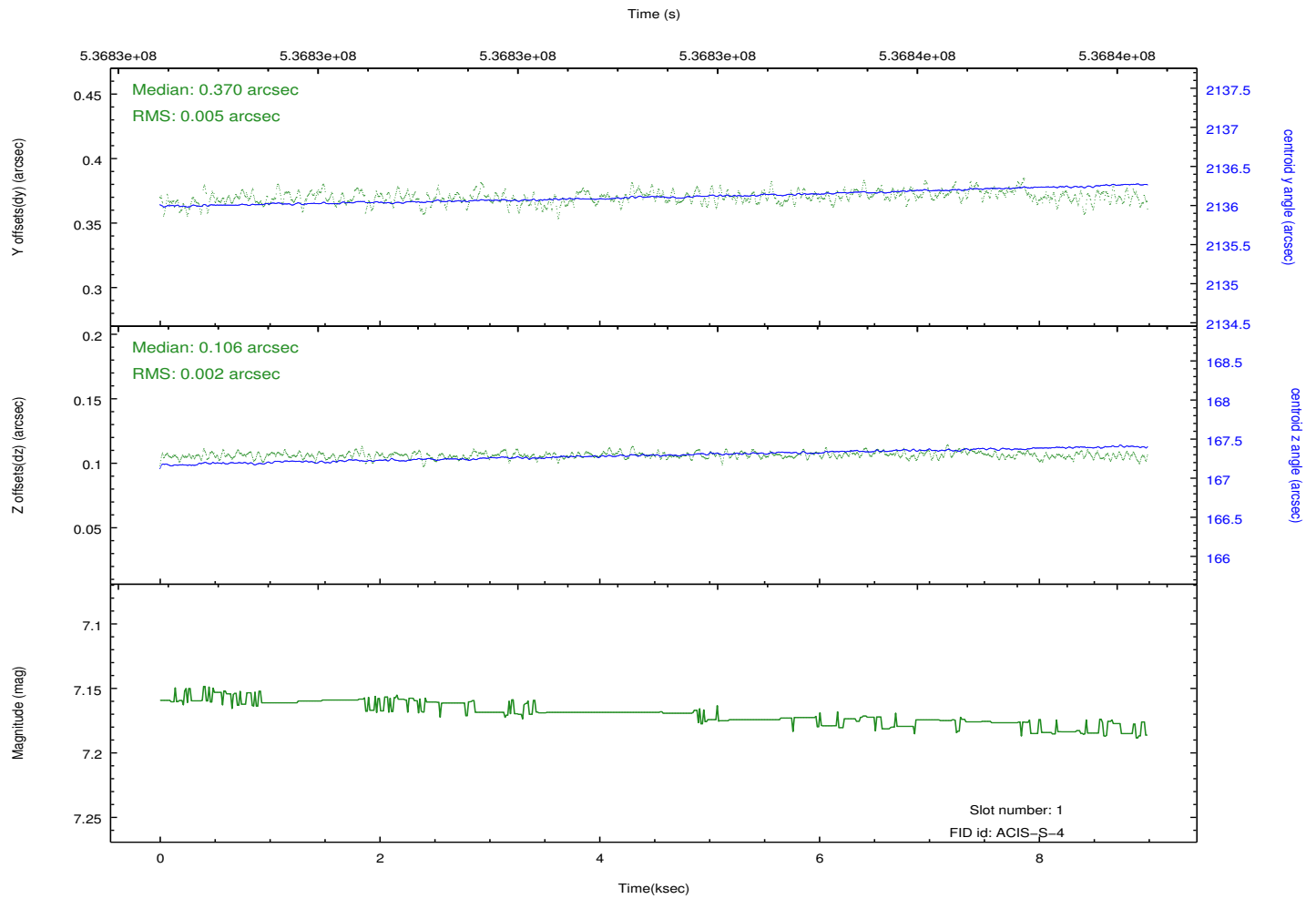
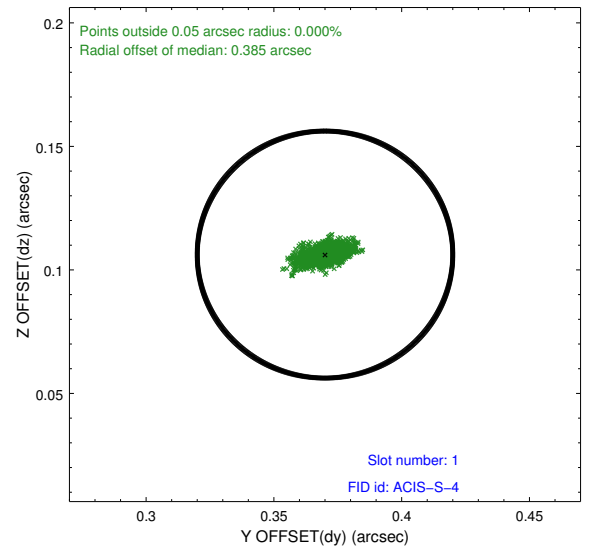
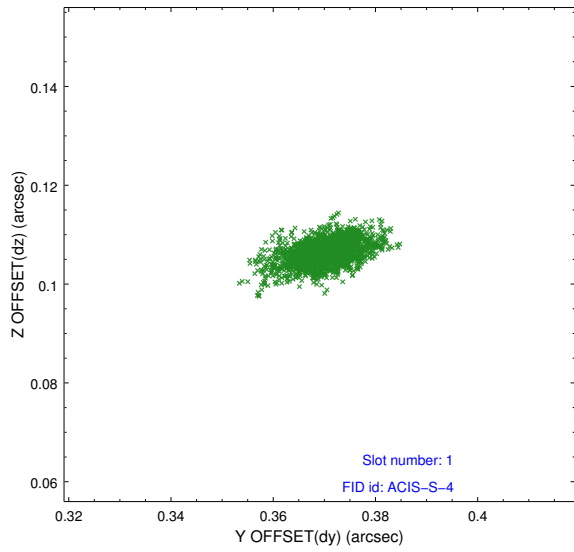


## 2.5 FID Slots

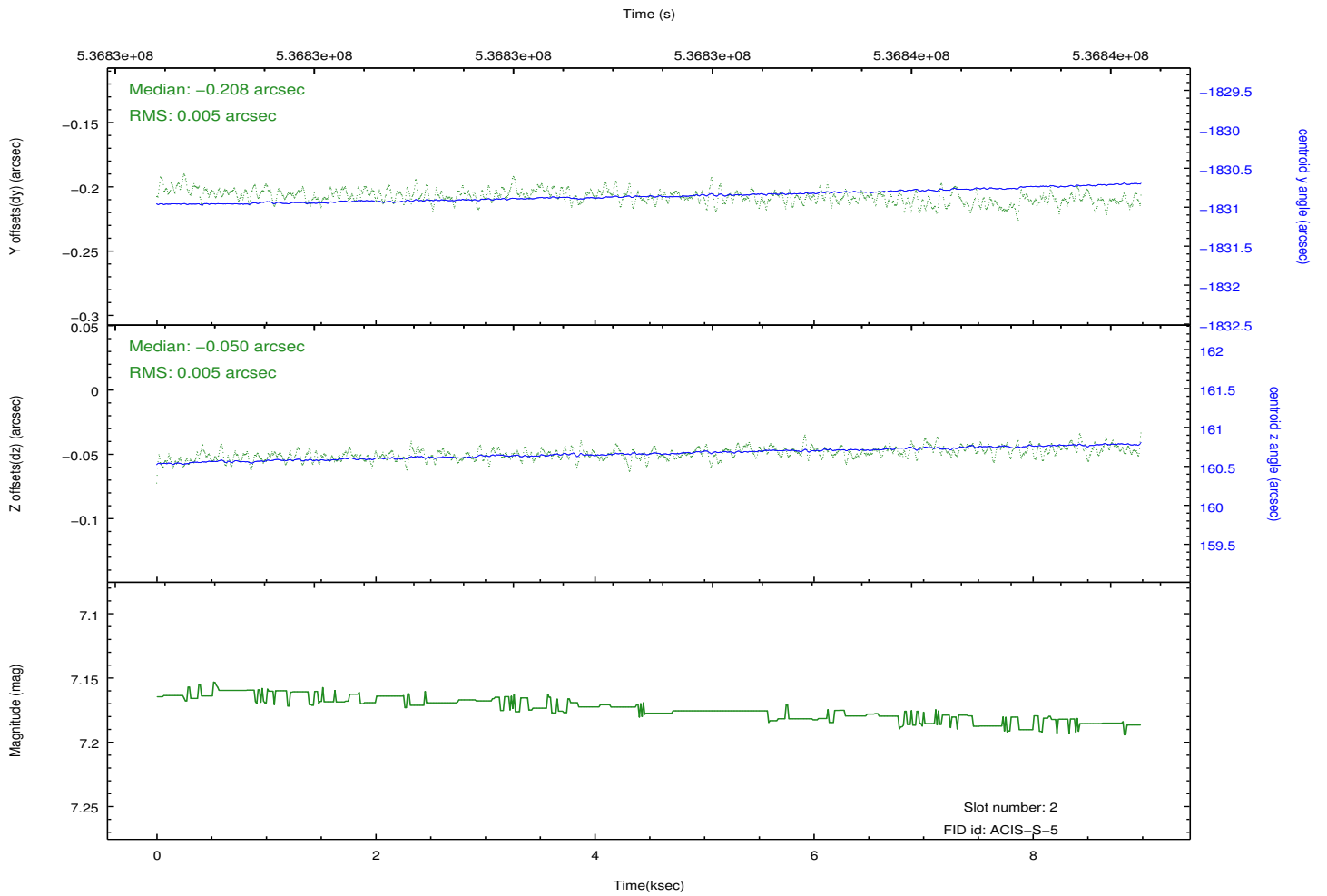
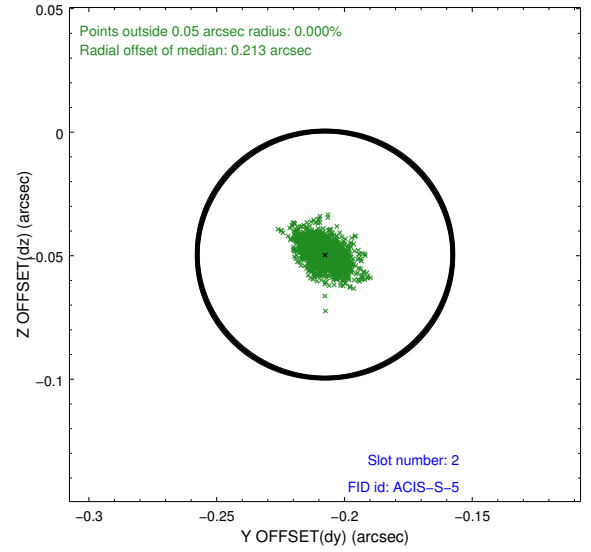
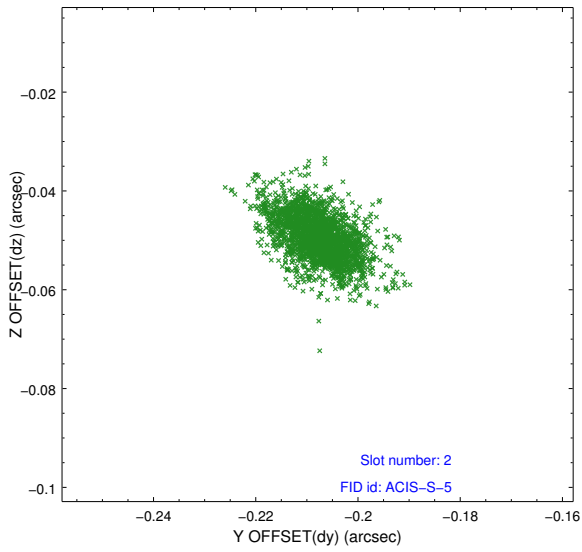
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2015.01.06
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.5622000658512

## A.2 Comments