

# V&V Reference Report

## L2 ASCDS Version : 10.2.4

Observation 16084 - L2 Version 1  
Chandra X-Ray Center

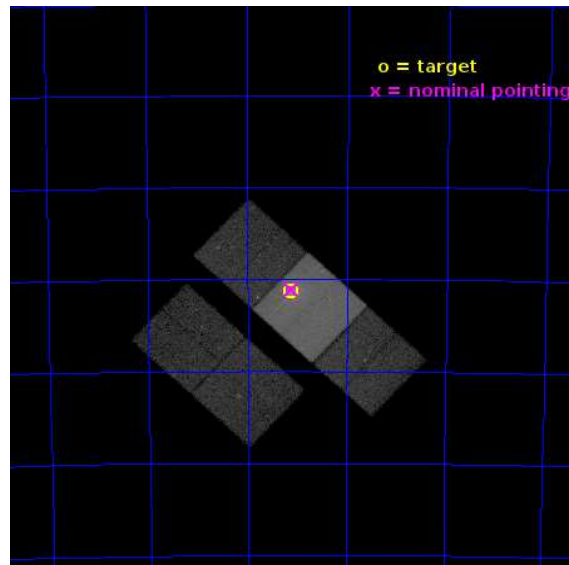
L2 Processing Date : Jul 17 2014

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# 1 Front

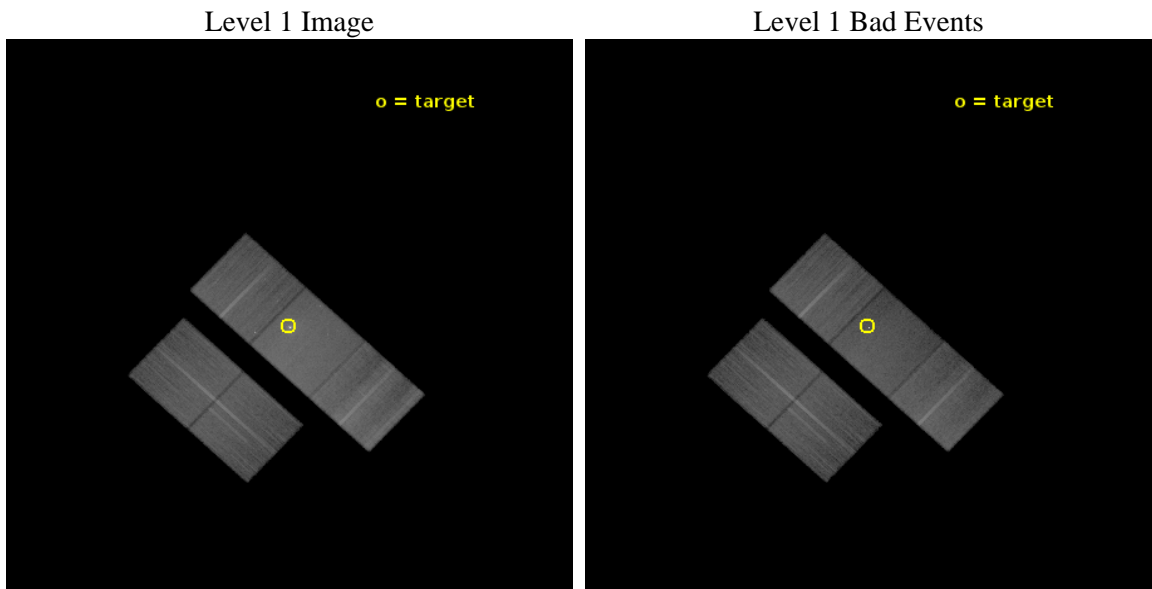
seq_num	702974	Sequence number
obs_id	16084	Observation id
title	Testing relativistic feedback at crucial jet power	Proposal title
observer	Prof Diana Worrall	Principal investigator
object	PKS B2152-699-HIC	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	329.280833	Observer's specified target RA [deg]
dec_targ	-69.687917	Observer's specified target Dec [deg]
ra_nom	329.2793222178	Nominal RA [deg]
dec_nom	-69.684853346562	Nominal Dec [deg]
roll_nom	43.155208941269	Nominal Roll [deg]
revision	1	Processing version of data
ontime	58068.819684863	Sum of GTIs [s]
livetime	57310.107806037	Livetime [s]
ontime2	58068.65552485	Sum of GTIs [s]
ontime3	58059.314553738	Sum of GTIs [s]
ontime6	58068.77864486	Sum of GTIs [s]
ontime7	58068.819684863	Sum of GTIs [s]
ontime8	58065.555534661	Sum of GTIs [s]
l2events	308062	Number of level 2 events



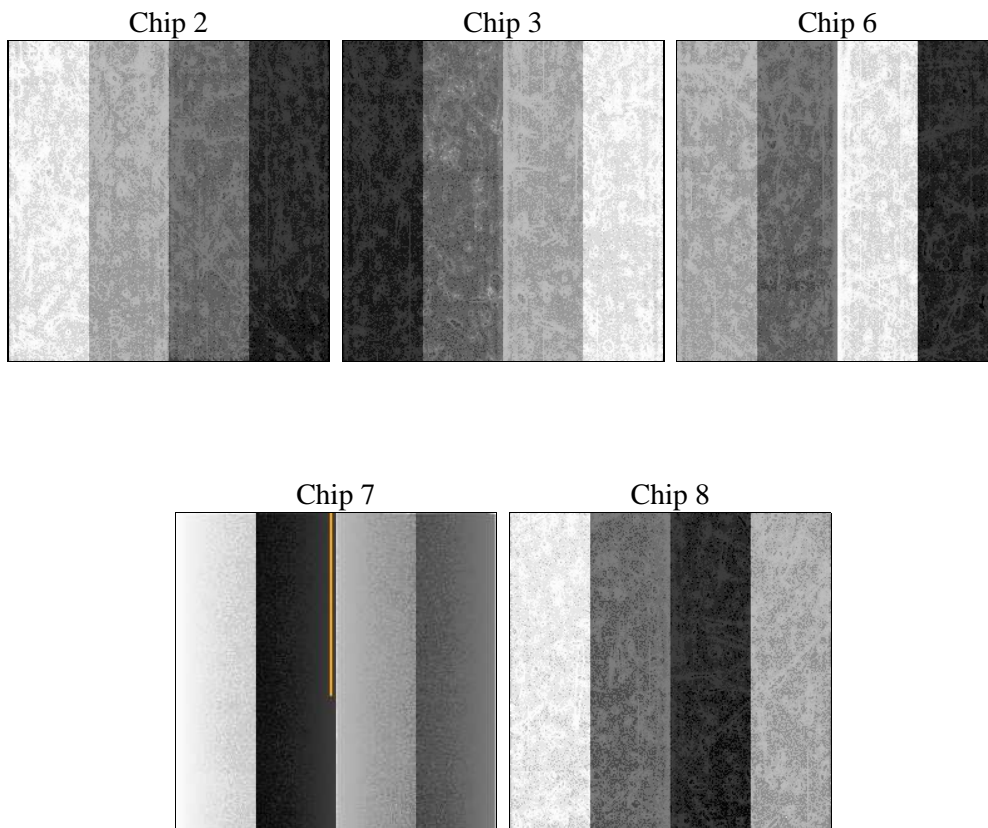
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	58000.000000	[s] Scheduled observation exposure time
ascdsver	10.2.4	Processing system revision	ontime	58068.819684863	Sum of GTIs [s]
caldbver	4.6.2	&#160	ontime2	58068.65552485	Sum of GTIs [s]
date	2014-07-17T12:46:13	Date and time of file creation	ontime3	58059.314553738	Sum of GTIs [s]
revision	1	Processing version of data	ontime6	58068.77864486	Sum of GTIs [s]
			ontime7	58068.819684863	Sum of GTIs [s]
			ontime8	58065.555534661	Sum of GTIs [s]
			l1events	1576841	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
level 1 events	261317	253720	281568	420648	359588
rejected events	230256	223436	245181	226301	263078
rejected %	88%	88%	87%	53%	73%

	ccd 2	ccd 3	ccd 6	ccd 7	ccd 8
grade 0 events	11175	10715	13517	22516	27967
	4%	4%	4%	5%	7%
grade 1 events	147	137	136	923	285
	0%	0%	0%	0%	0%
grade 2 events	7575	6794	8001	40983	23061
	2%	2%	2%	9%	6%
grade 3 events	3109	3188	3532	17032	10042
	1%	1%	1%	4%	2%
grade 4 events	3132	3286	3516	16847	9477
	1%	1%	1%	4%	2%
grade 5 events	11980	14368	14858	41016	20846
	4%	5%	5%	9%	5%
grade 6 events	6072	6305	7826	96987	25974
	2%	2%	2%	23%	7%
grade 7 events	218127	208927	230182	184344	241936
	83%	82%	81%	43%	67%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-23678	ACIS-23678	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	329.257401	329.2793222177974	CCD I2 on	O3	Y
[deg] Pointing Dec	-69.711213	-69.68485334656214	CCD I3 on	O2	Y
[deg] Pointing Roll	42.978019	43.15520894126876	CCD S0 on	N	N
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	N	N
[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)	521878957.184000	521877105.2042	CCD S5 on	N	N
Observation start date	2014-07-16T06:21:30	2014-07-16T05:51:45	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	521936957.184000	521937832.35756	On-chip summing requested	N	N
Observation end date	2014-07-16T22:28:10	2014-07-16T22:43:52	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect

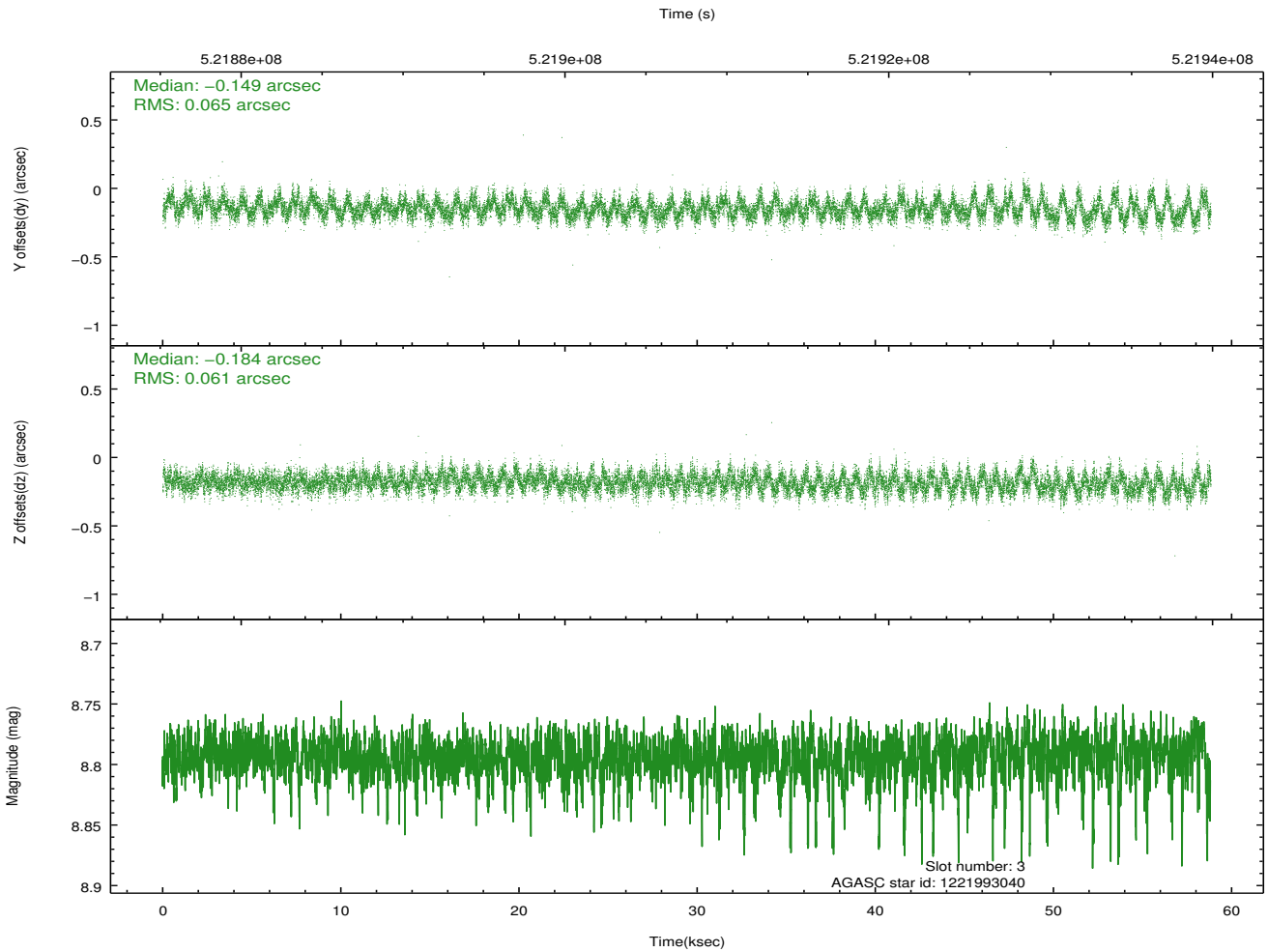
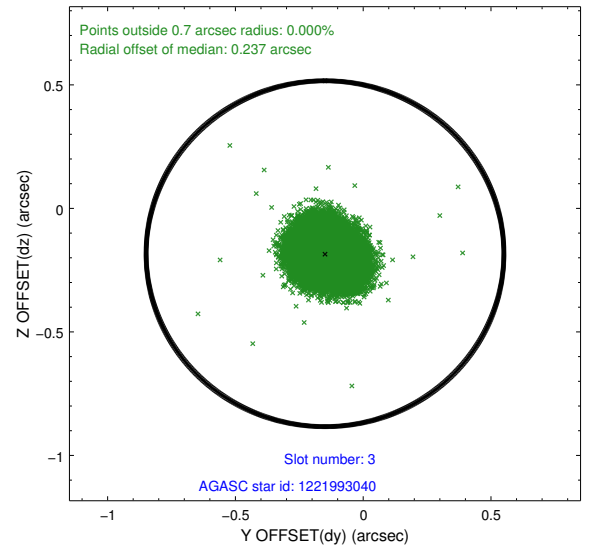
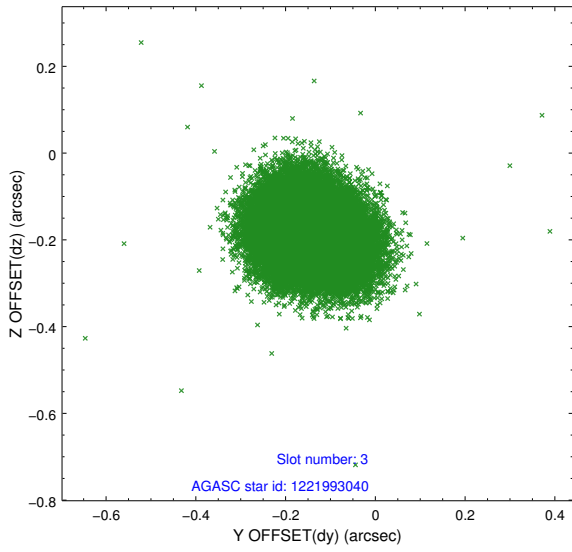


### Slot Statistics

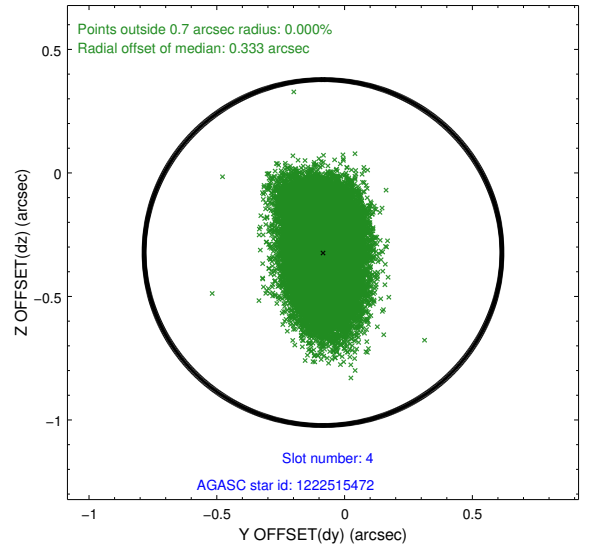
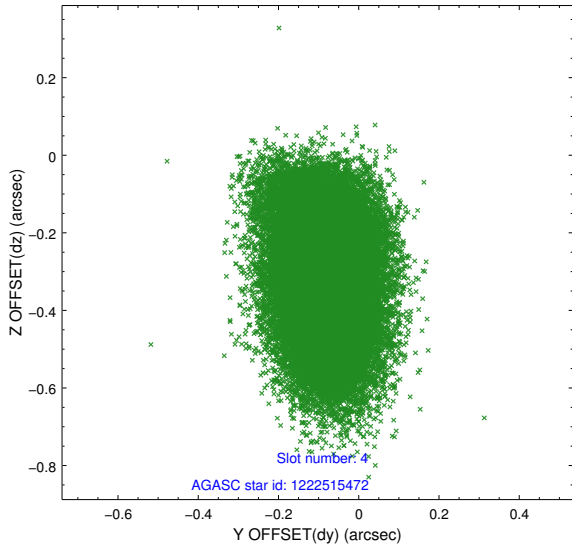
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.96	14349	-0.111	-0.006	0.016	0.030	0.000000	0.000000	-771.00	-1737.76
1	FID	ACIS-S-4	7.04	14349	0.254	0.055	0.024	0.033	0.000000	0.000000	2142.66	170.82
2	FID	ACIS-S-5	7.07	14349	-0.176	-0.039	0.026	0.035	0.000000	0.000000	-1823.95	164.36
3	GUIDE	1221993040	8.79	28682	-0.149	-0.184	0.096	0.151	329.911887	-69.225732	1799.57	705.21
4	GUIDE	1222515472	9.40	28679	-0.084	-0.322	0.173	0.278	327.696970	-69.436721	-786.65	2048.02
5	GUIDE	1222519848	6.96	28698	0.065	0.171	0.096	0.157	328.892628	-70.068316	-1204.76	-636.36
6	GUIDE	1222639984	8.86	28687	0.004	0.109	0.085	0.137	330.310234	-69.445781	1616.71	-215.89
7	GUIDE	1222510376	8.89	28689	0.156	0.226	0.107	0.172	328.974100	-70.536772	-2274.41	-1943.67

## 2.4 Star Slots

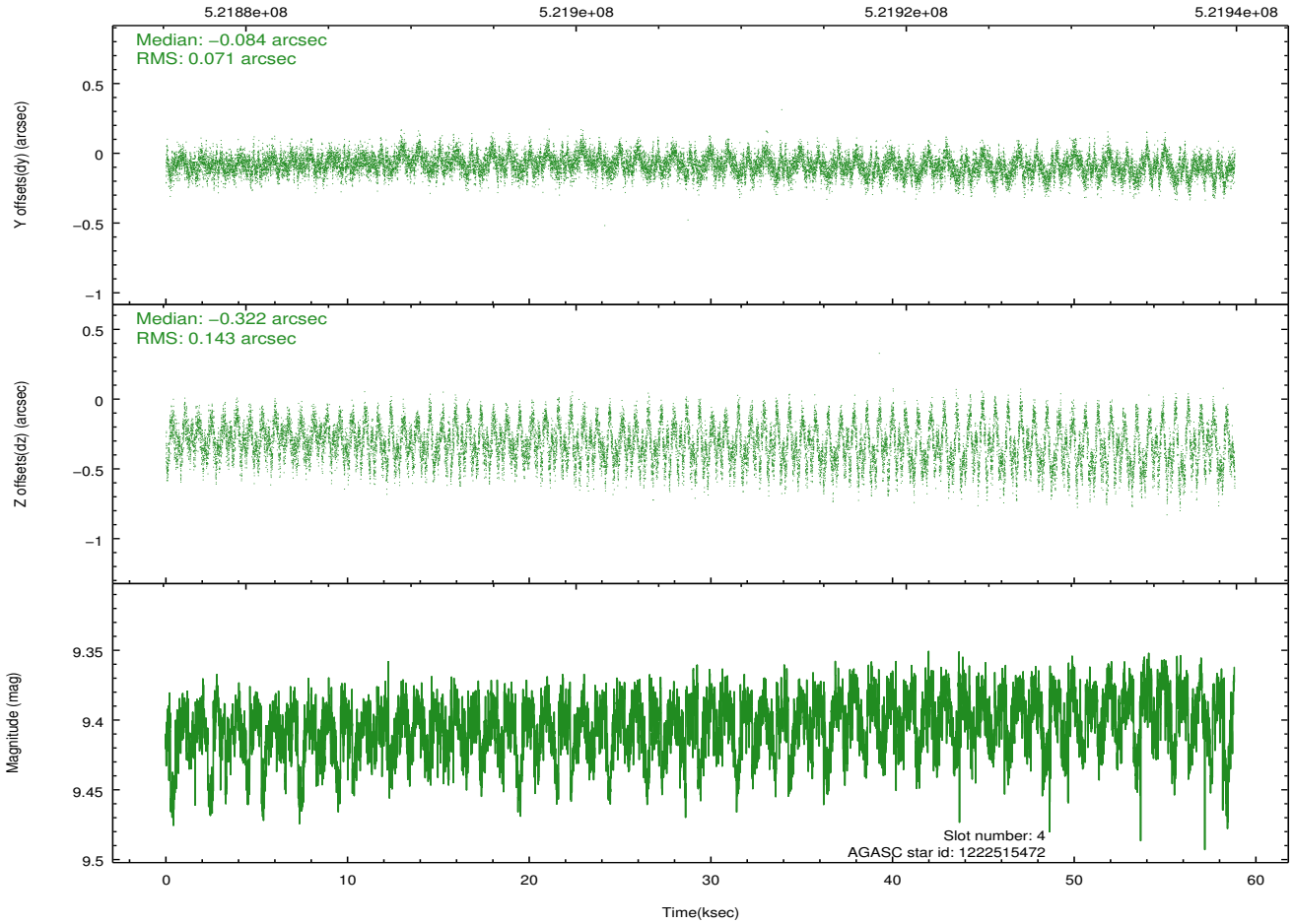
### 2.4.1 Slot 3



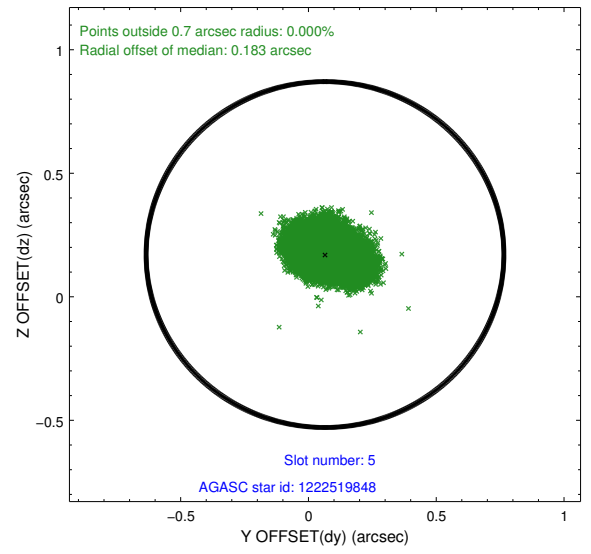
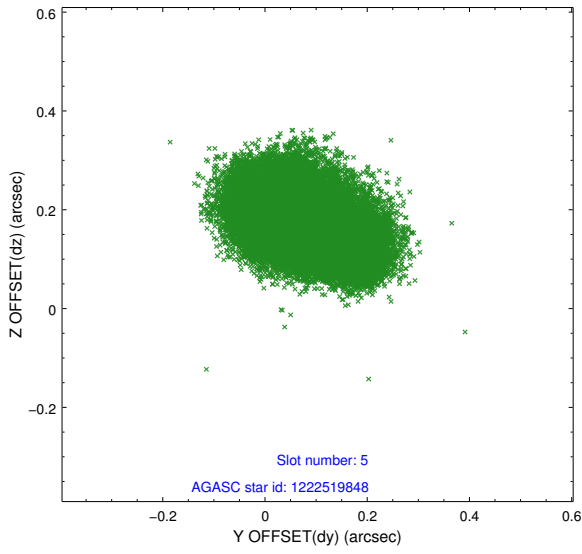
## 2.4.2 Slot 4



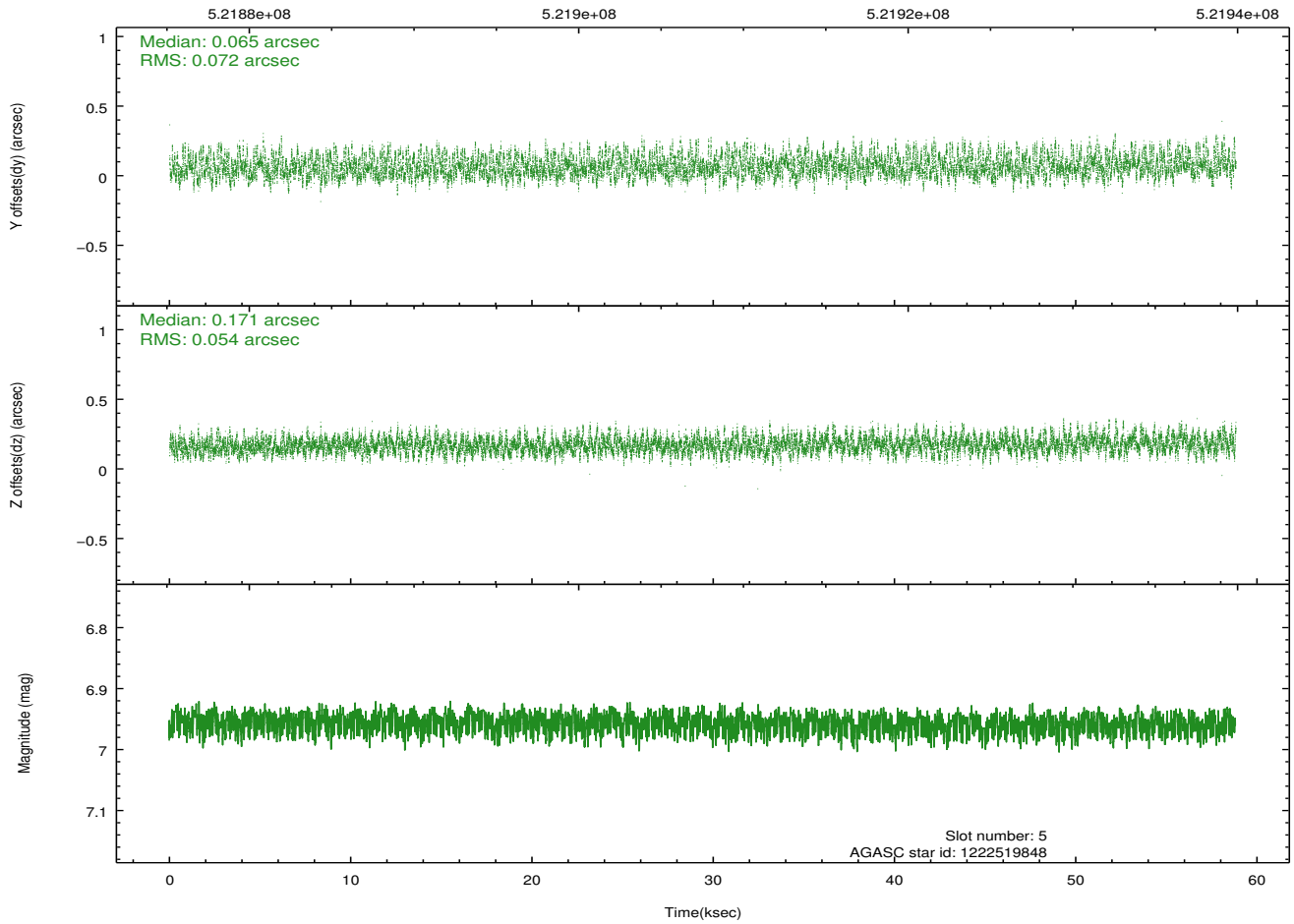
Time (s)



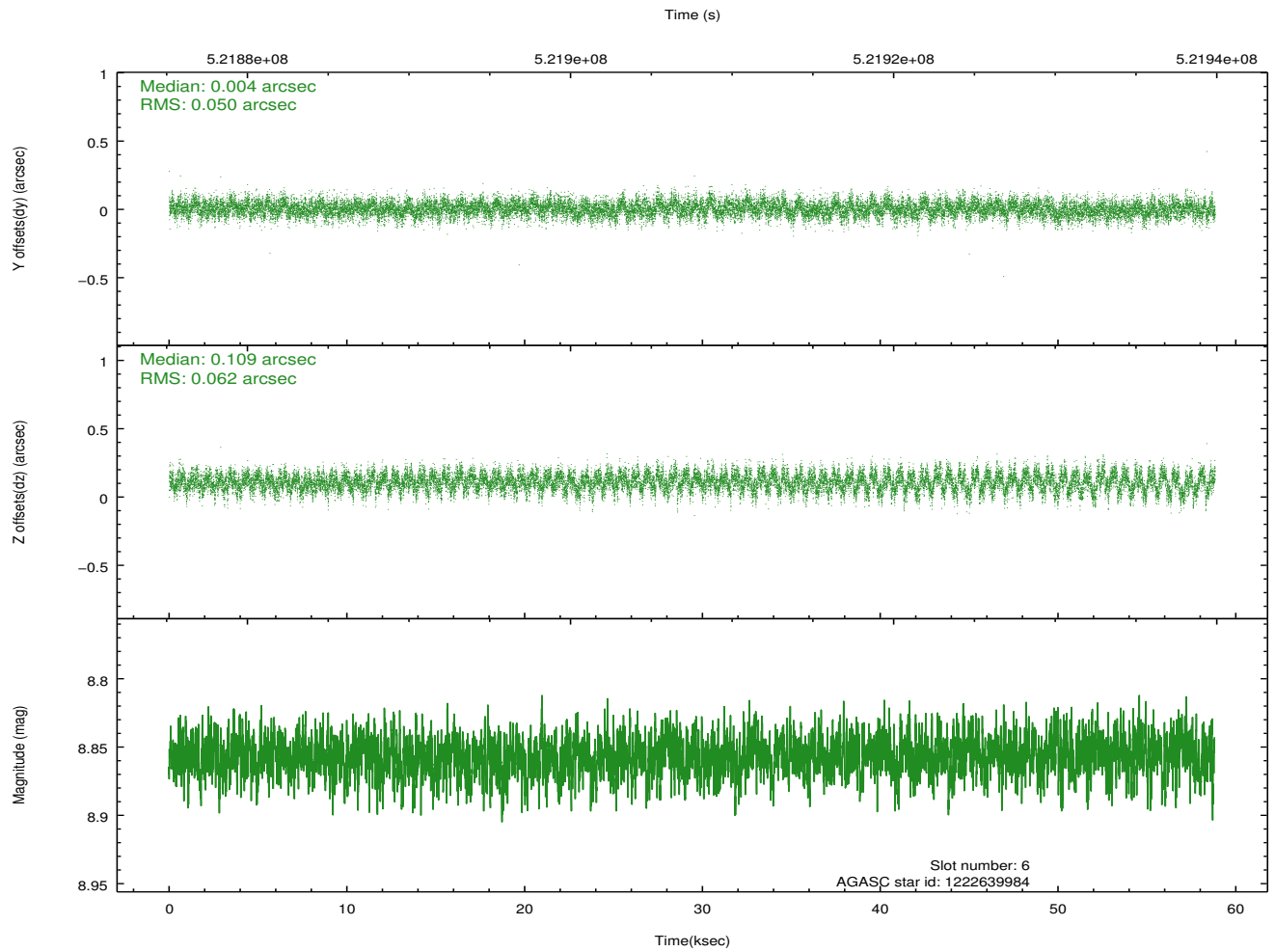
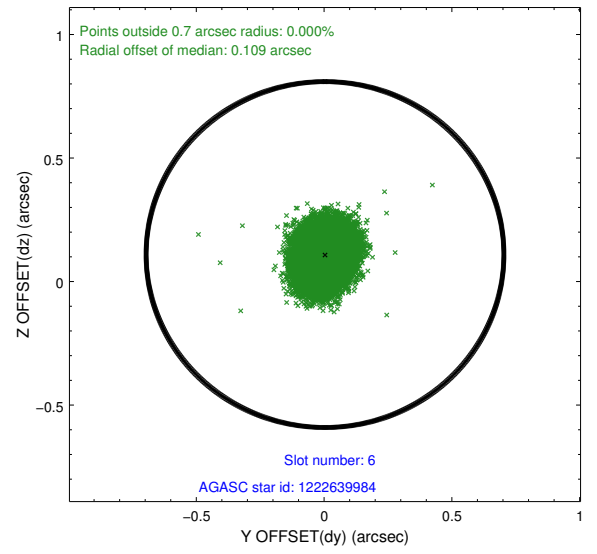
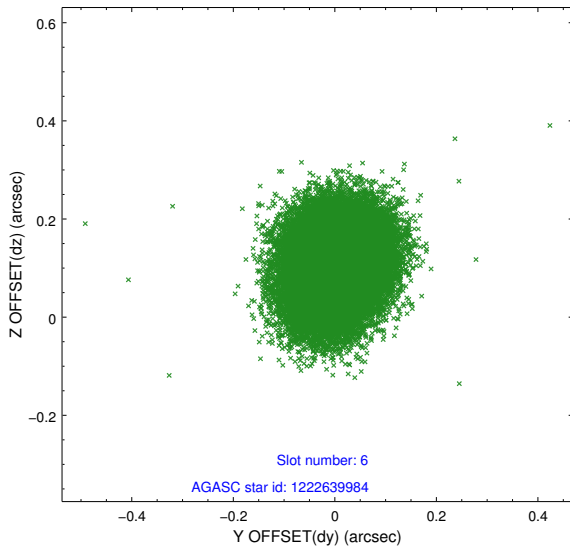
### 2.4.3 Slot 5



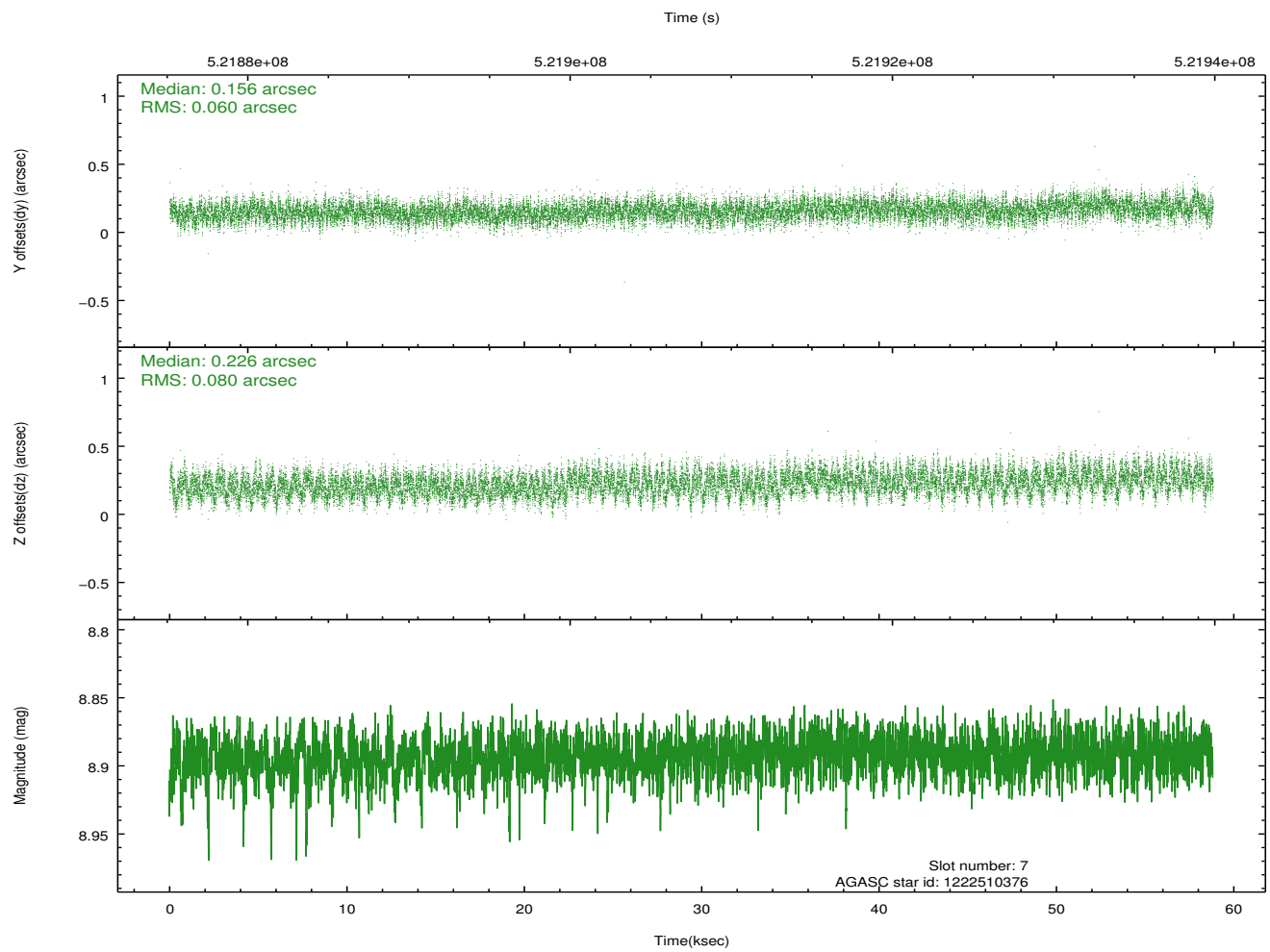
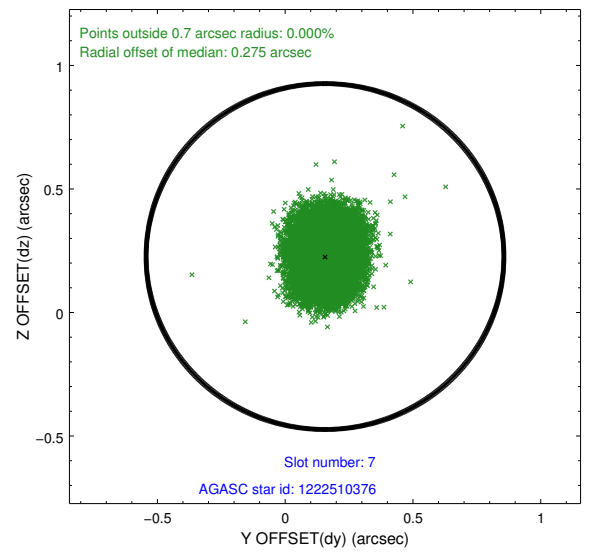
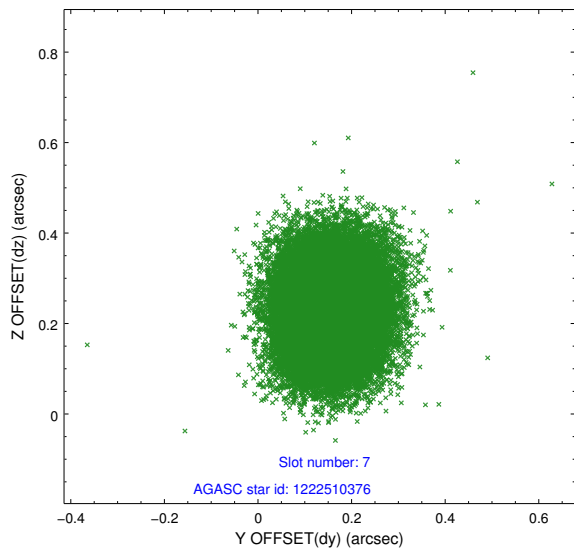
Time (s)



## 2.4.4 Slot 6

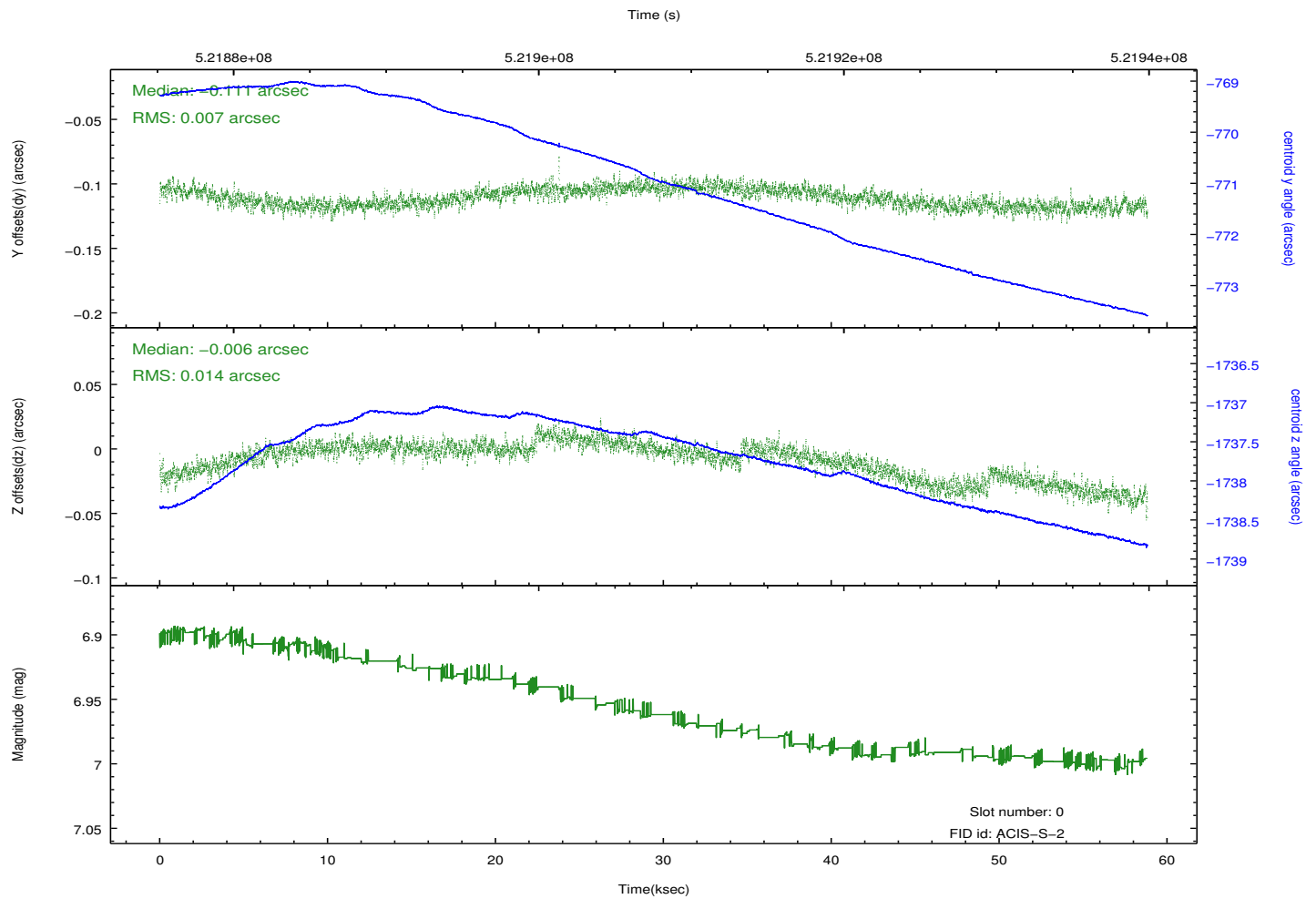
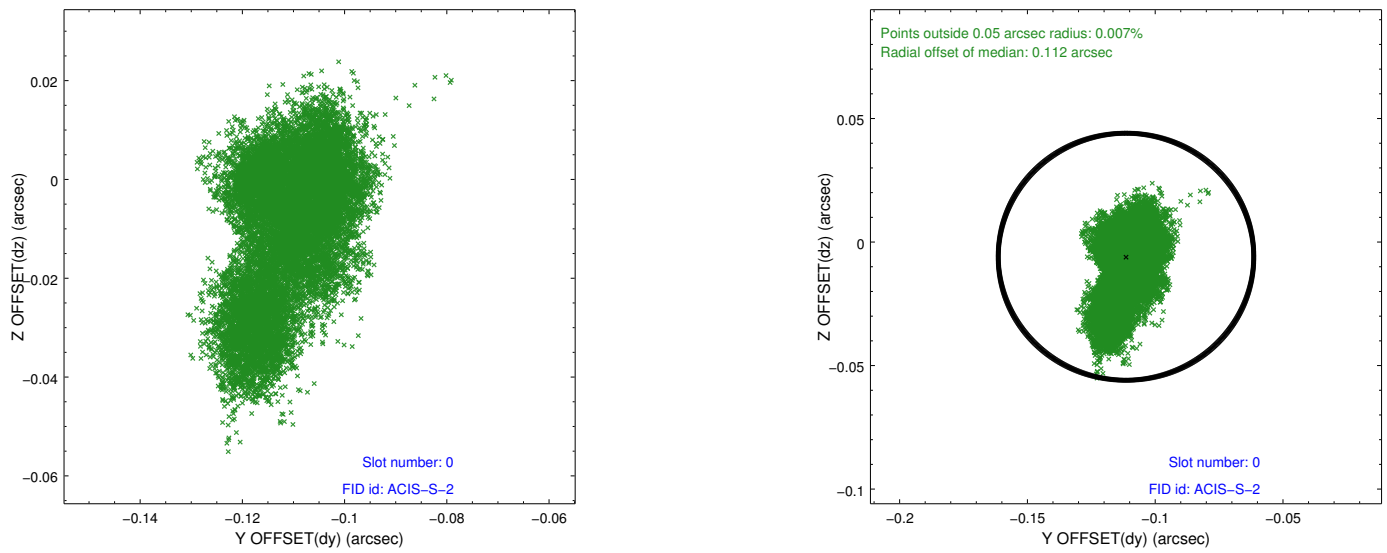


## 2.4.5 Slot 7

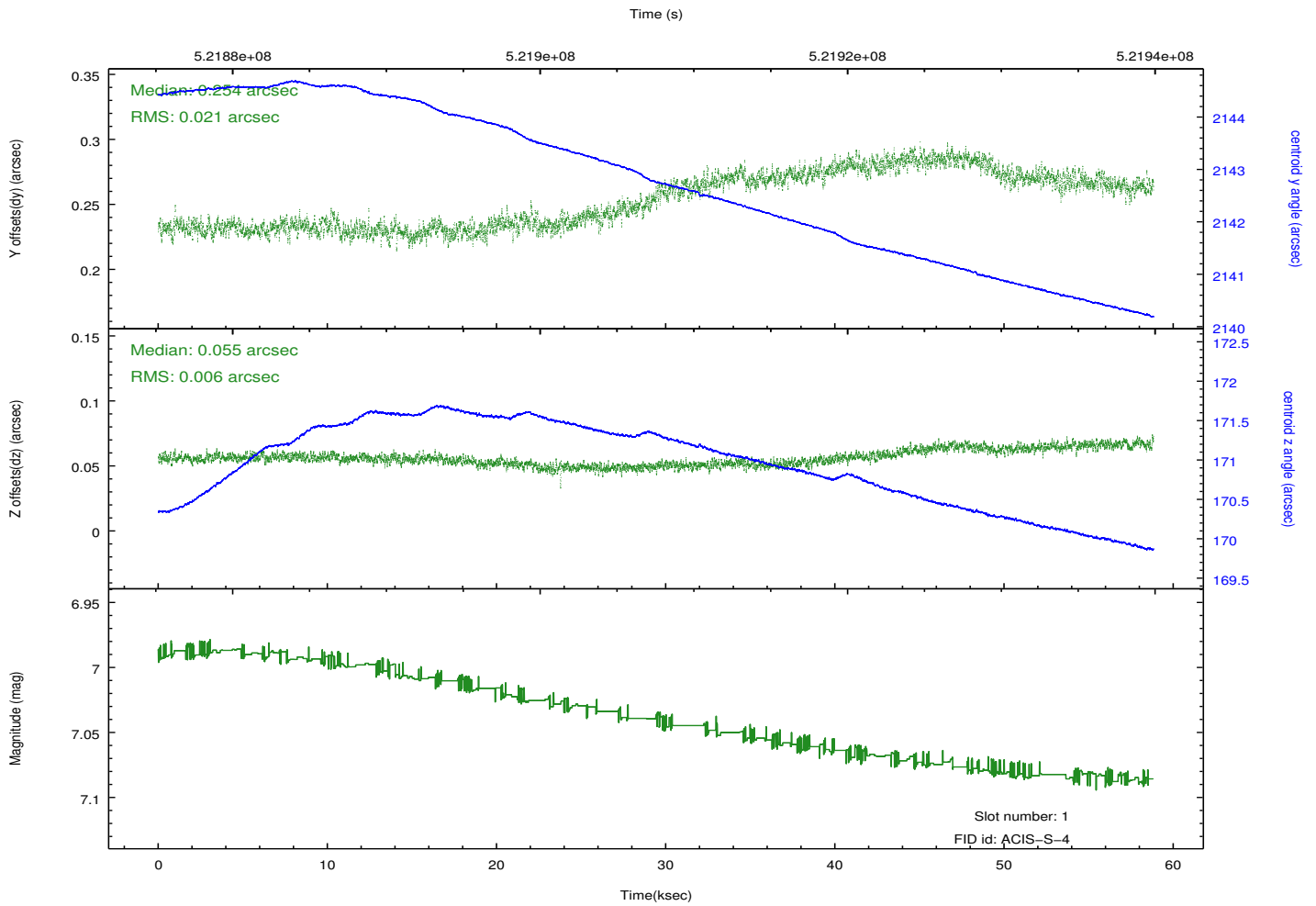
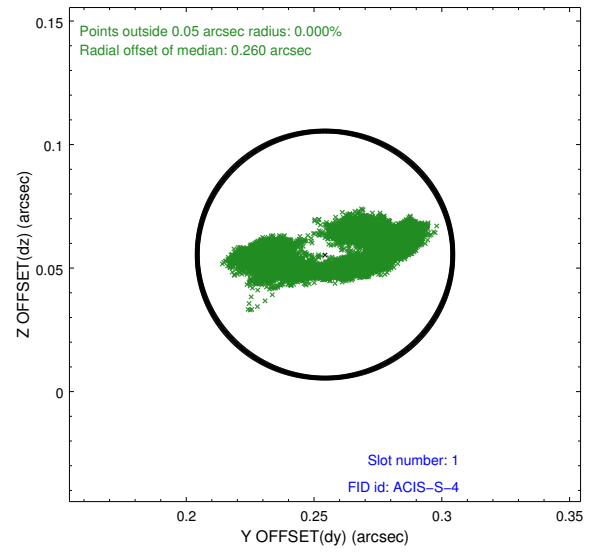
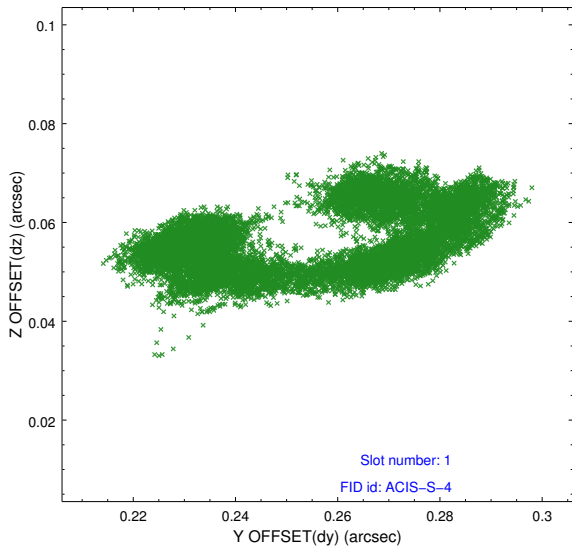


## 2.5 FID Slots

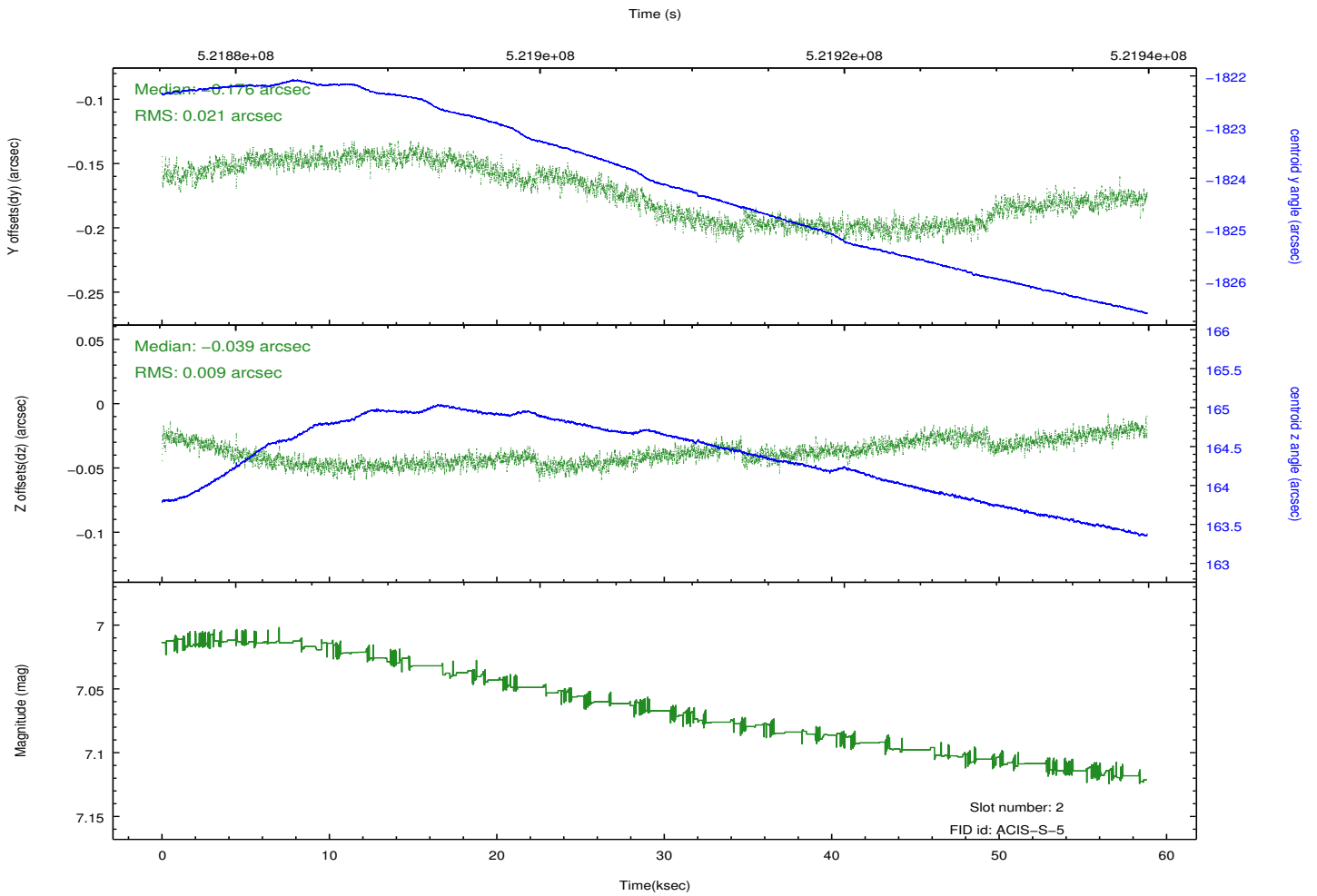
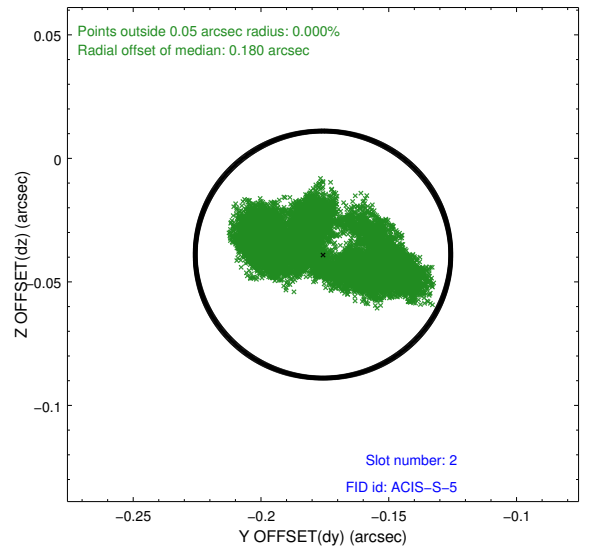
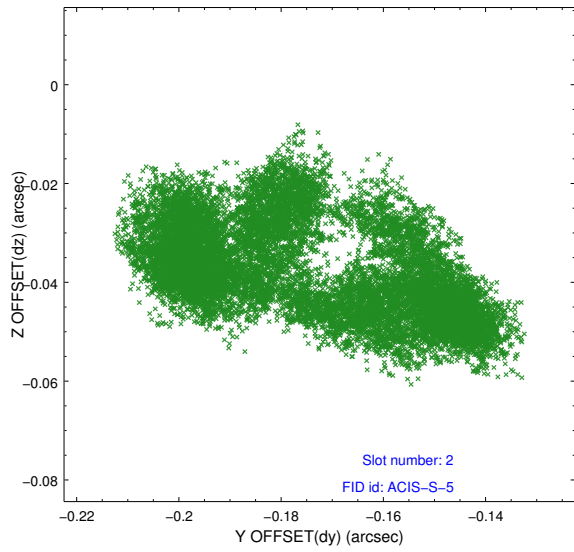
### 2.5.1 Slot 0



## 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)	2014.07.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	58.068819684863

## A.2 Comments

Joint Proposal: HST. Roll preference met.