

# V&V Reference Report

## L2 ASCDS Version : 10.4.3.1

Observation 17467 - L2 Version 2  
Chandra X-Ray Center

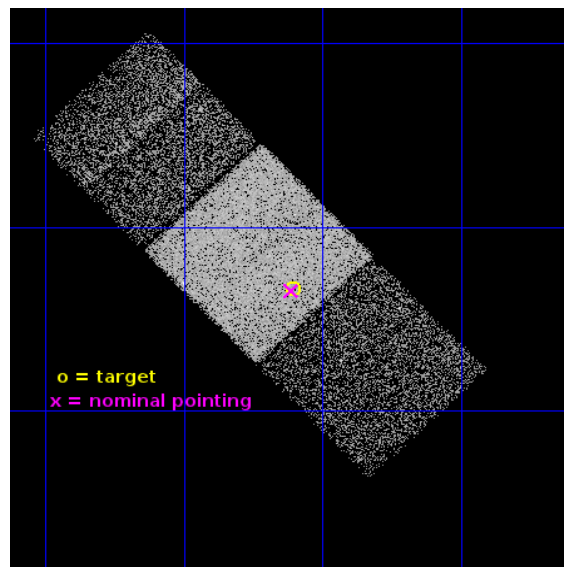
L2 Processing Date : May 4 2016

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# 1 Front

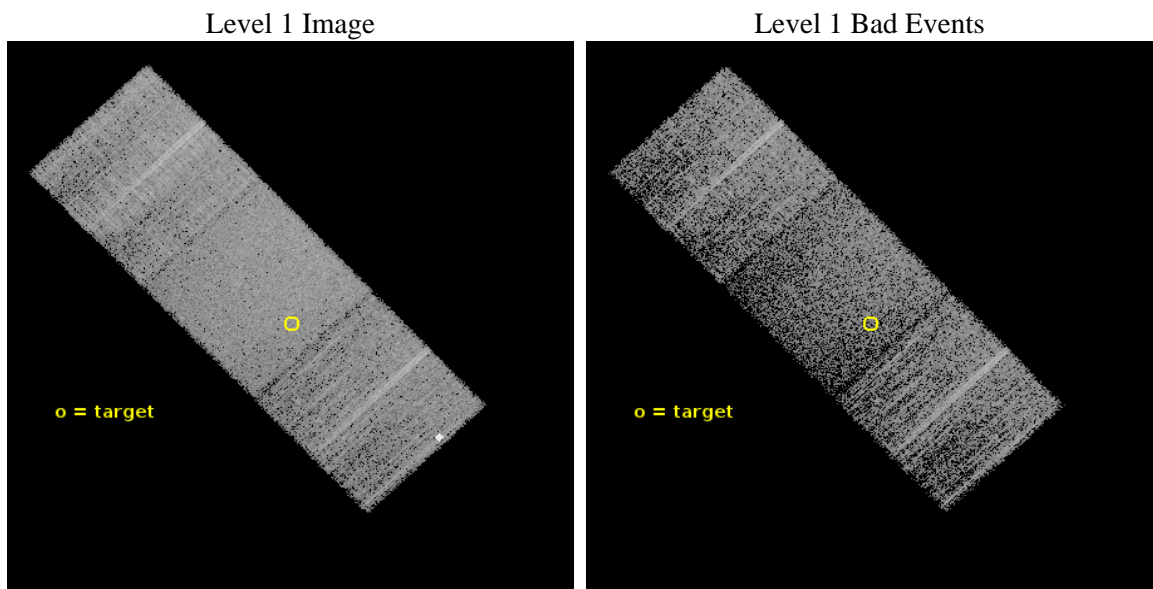
seq_num	703144	Sequence number
obs_id	17467	Observation id
title	Intrinsic X-ray Weakness and the Launching of Powerful Quasar Winds	&#160
observer	Gordon Garmire	Principal investigator
object	LBQS 1235+1453	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	189.401667	Observer's specified target RA [deg]
dec_targ	14.611139	Observer's specified target Dec [deg]
ra_nom	189.40298620467	Nominal RA [deg]
dec_nom	14.608920100968	Nominal Dec [deg]
roll_nom	226.38409081021	Nominal Roll [deg]
revision	2	Processing version of data
ontime	11411.100087881	Sum of GTIs [s]
livetime	11262.005664503	Livetime [s]
ontime6	11411.100087881	Sum of GTIs [s]
ontime7	11411.100087881	Sum of GTIs [s]
ontime8	11411.100087881	Sum of GTIs [s]
l2events	54241	Number of level 2 events



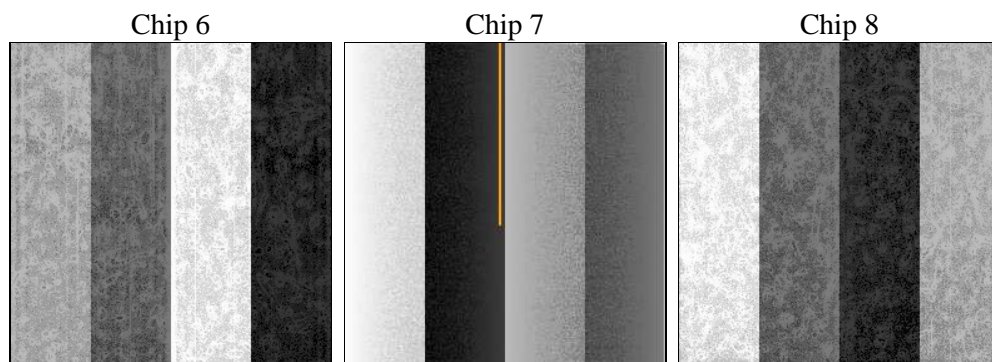
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	11300.000000	[s] Scheduled observation exposure time
ascdsver	10.4.3.1	Processing system revision	ontime	11411.100087881	Sum of GTIs [s]
caldsver	4.7.1	&#160	ontime6	11411.100087881	Sum of GTIs [s]
date	2016-05-04T16:08:54	Date and time of file creation	ontime7	11411.100087881	Sum of GTIs [s]
revision	2	Processing version of data	ontime8	11411.100087881	Sum of GTIs [s]
			l1events	261969	Number of level 1 events

### 2.1.4 Events

	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	76021	90705	95243
rejected events	64345	51103	70564
rejected %	84%	56%	74%

	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	2756	3481	6956
	3%	3%	7%
grade 1 events	43	120	74
	0%	0%	0%
grade 2 events	5414	8320	6031
	7%	9%	6%
grade 3 events	835	3130	2564
	1%	3%	2%
grade 4 events	755	3092	2405
	0%	3%	2%
grade 5 events	3436	9080	5139
	4%	10%	5%
grade 6 events	1921	21599	6738
	2%	23%	7%
grade 7 events	60861	41883	65336
	80%	46%	68%

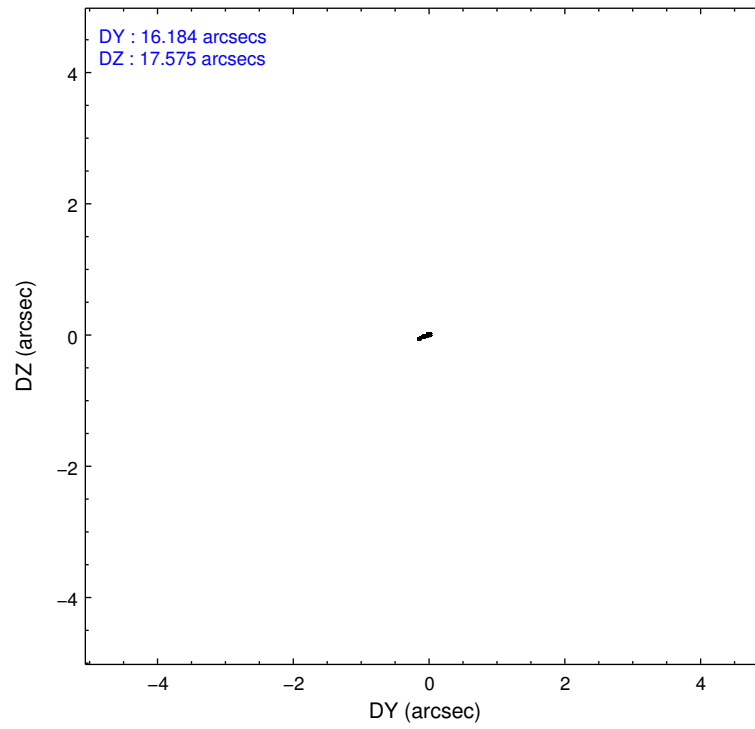
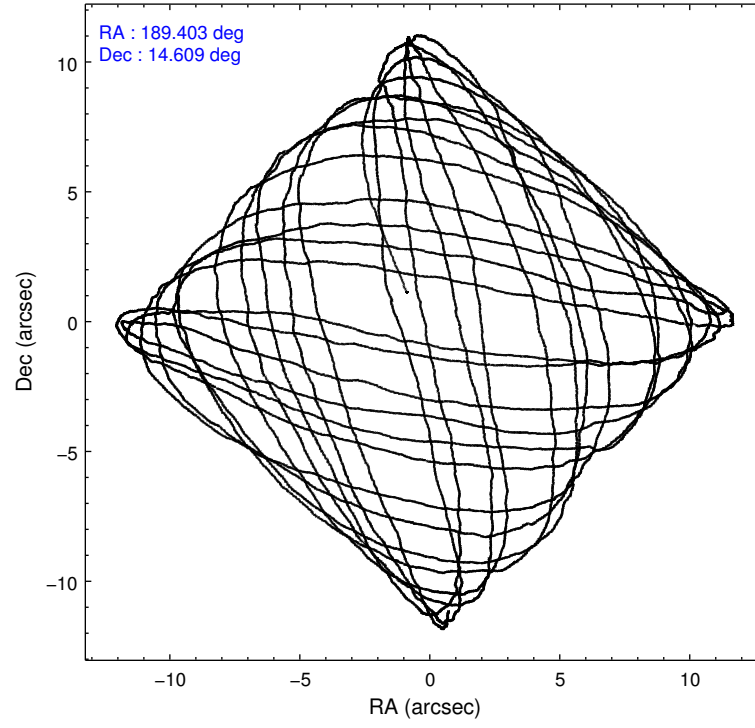


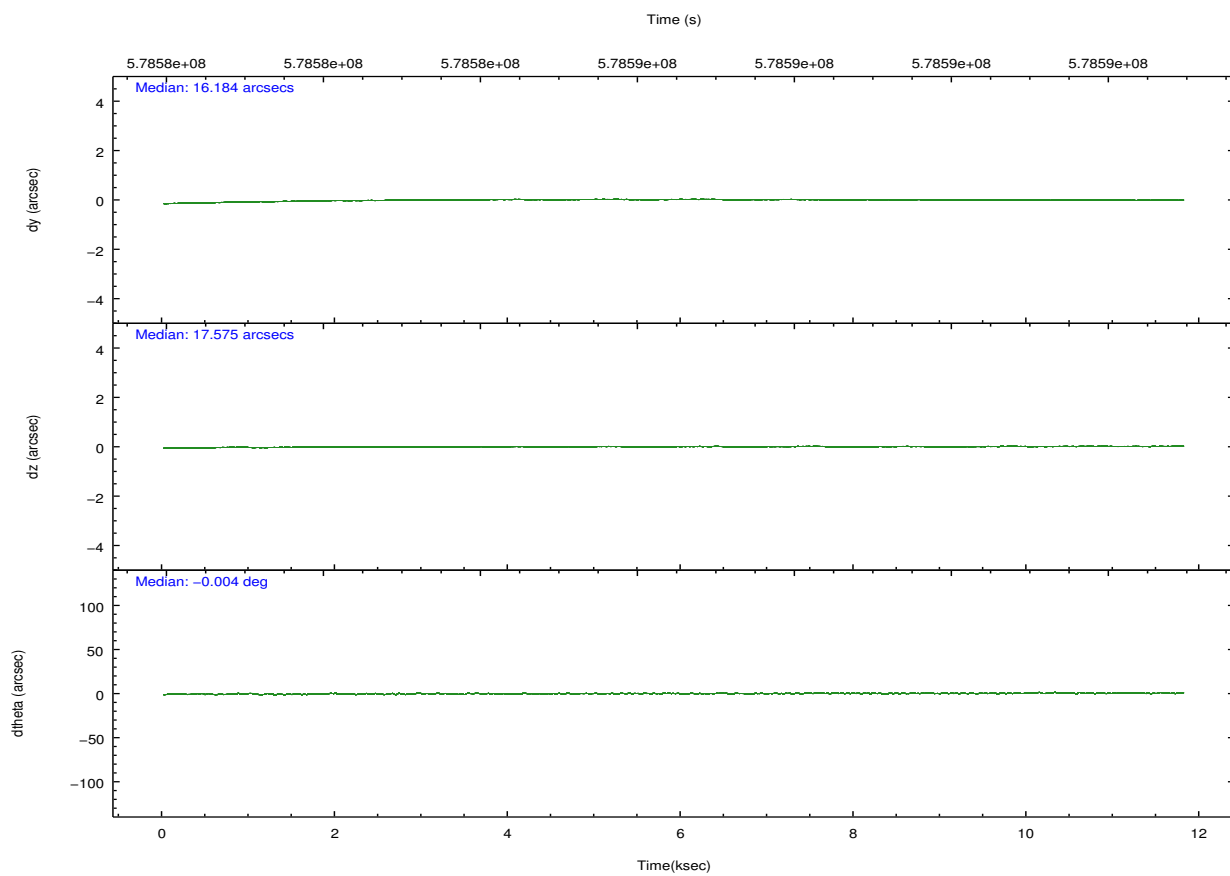
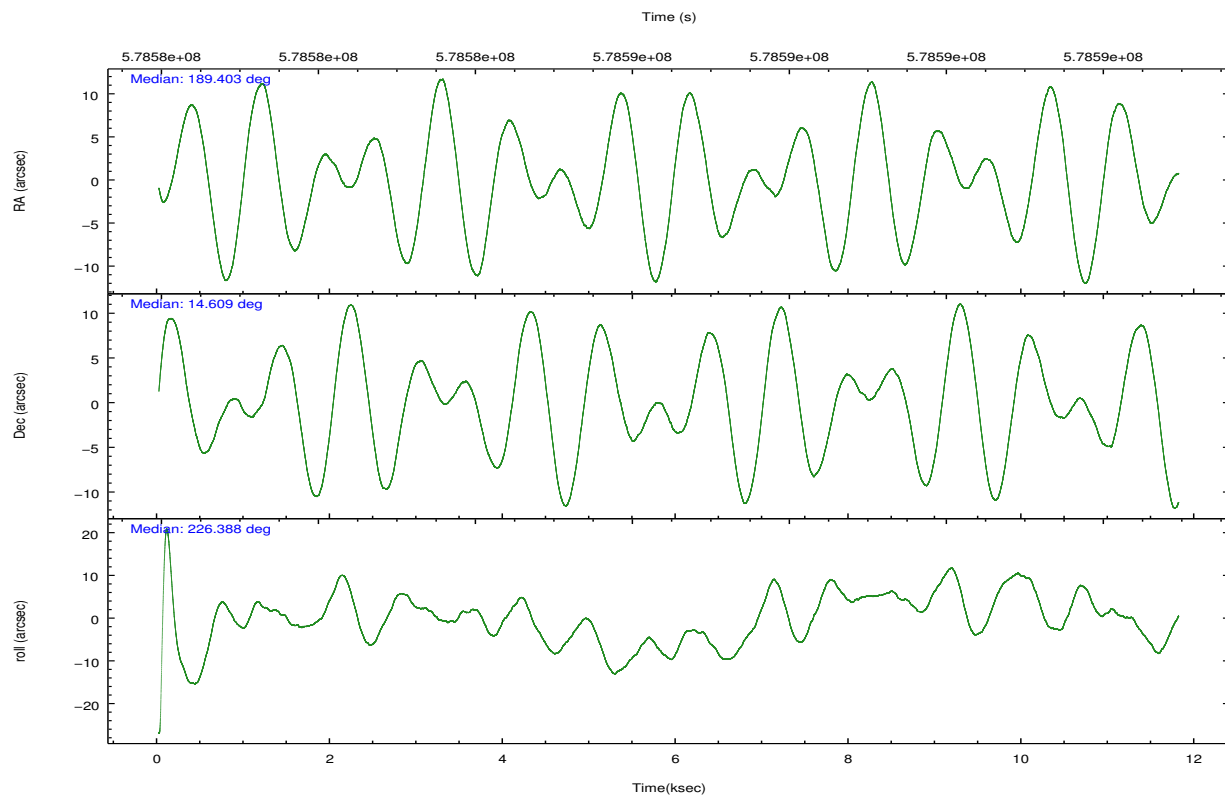
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-678	ACIS-678
Grating	NONE	NONE
Data mode	VFAINT	VFAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	189.409274	189.4029862046689
[deg] Pointing Dec	14.635664	14.60892010096838
[deg] Pointing Roll	226.225932	226.3840908102089
[mm] SIM focus pos	-0.684267	-0.6828225247311905
[mm] SIM defocus	0	0.001444936568705701
[mm] SIM translation stage pos	-190.132523	-190.1425803651734
[mm] SIM translation stage offset	0	0.01005778216563158
[s] Observation start time (MET)	578581070.184000	578580075.29105
Observation start date	2016-05-02T12:56:42	2016-05-02T12:41:15
[s] Observation end time (MET)	578592370.184000	578593526.36682
Observation end date	2016-05-02T16:05:02	2016-05-02T16:25:26
Read mode	TIMED	TIMED

Parameter	Planned	Actual
Obspar format version number	7	7
Obspar file type	PREDICTED	ACTUAL
Obspar update status	NONE	UPDATED
Number of optional ACIS chips dropped	0	0
On-chip summing requested	N	N
Subarray requested	NONE	NONE
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



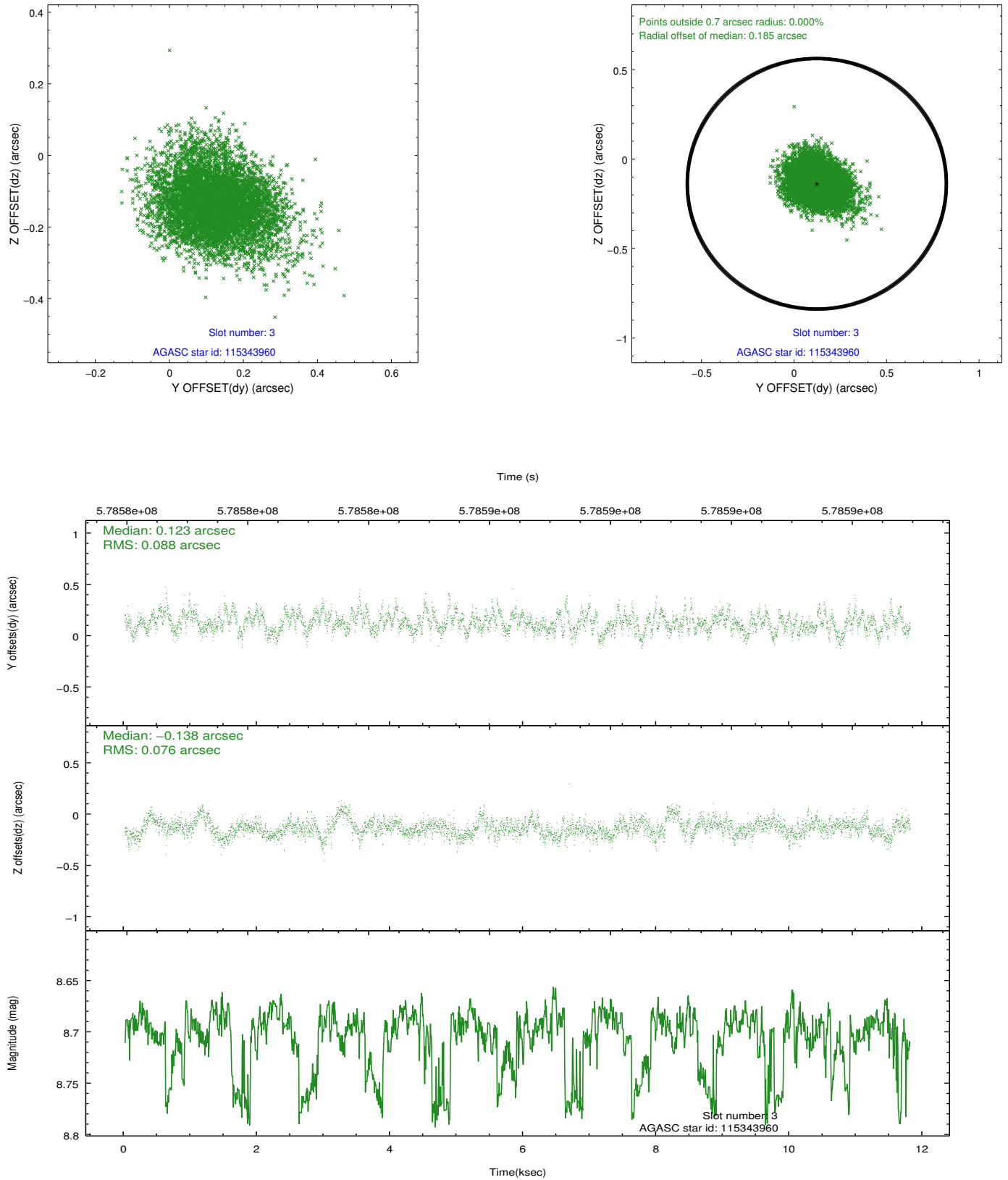


### Slot Statistics

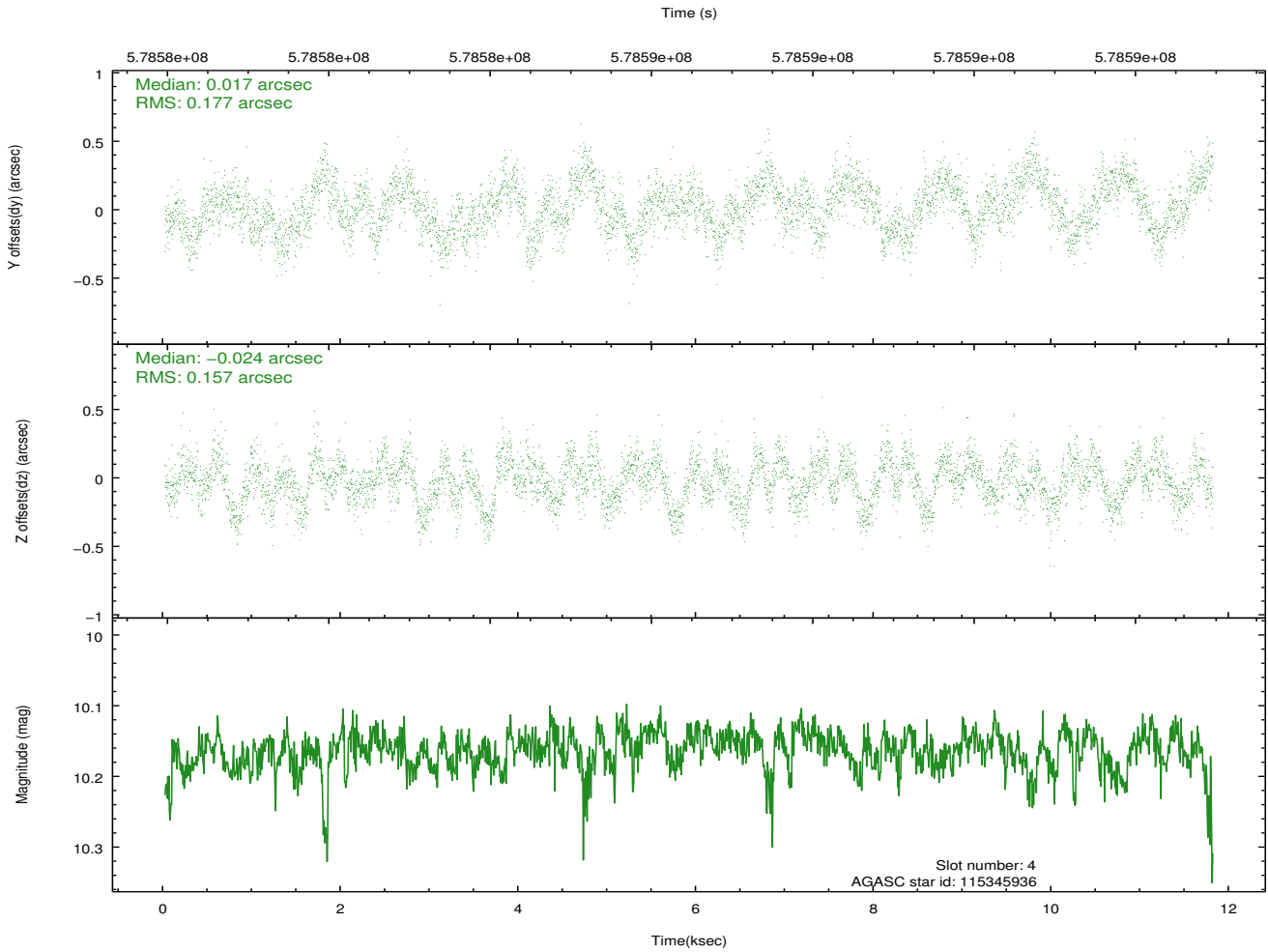
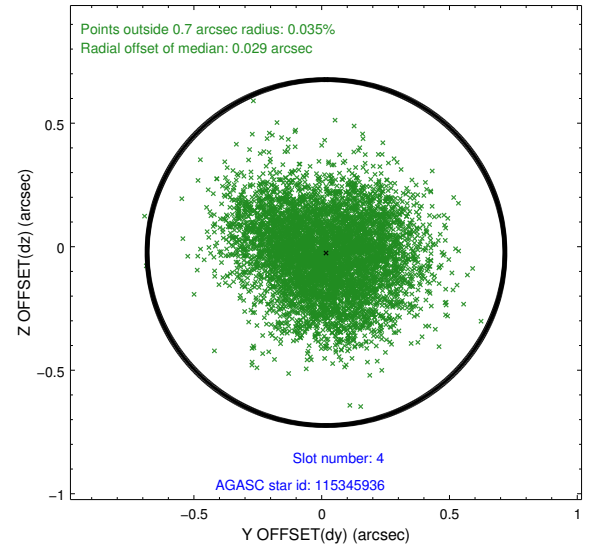
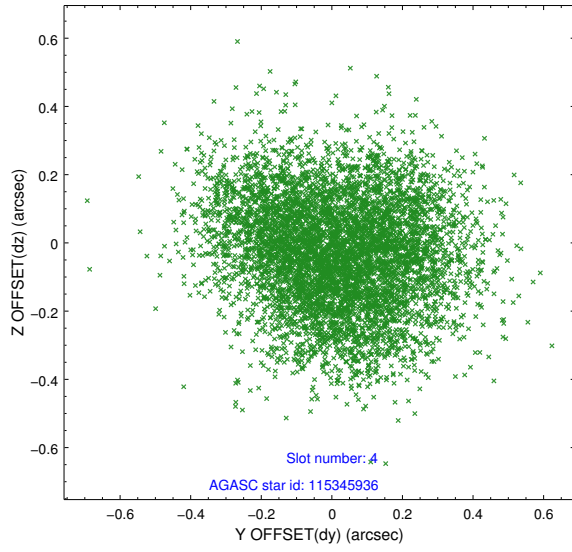
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-2	7.12	2878	-0.172	-0.127	0.007	0.012	0.000000	0.000000	-769.34	-1739.10
1	FID		ACIS-S-4	7.23	2878	0.413	0.117	0.006	0.011	0.000000	0.000000	2144.32	169.19
2	FID		ACIS-S-5	7.24	2878	-0.272	0.018	0.007	0.011	0.000000	0.000000	-1821.74	163.24
3	GUIDE	used	115343960	8.70	5757	0.123	-0.138	0.123	0.199	188.590007	14.643744	1950.37	-2084.65
4	GUIDE	used	115345936	10.16	5748	0.017	-0.024	0.254	0.399	188.840486	14.249324	2376.37	-472.51
5	GUIDE	used	115475336	7.76	5755	-0.268	0.182	0.105	0.171	189.606179	14.872414	-1088.23	-95.21
6	GUIDE	used	189543784	9.03	5755	0.115	-0.027	0.190	0.273	189.184903	15.264210	-1094.60	-2128.18
7	OMITTED			0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00

## 2.4 Star Slots

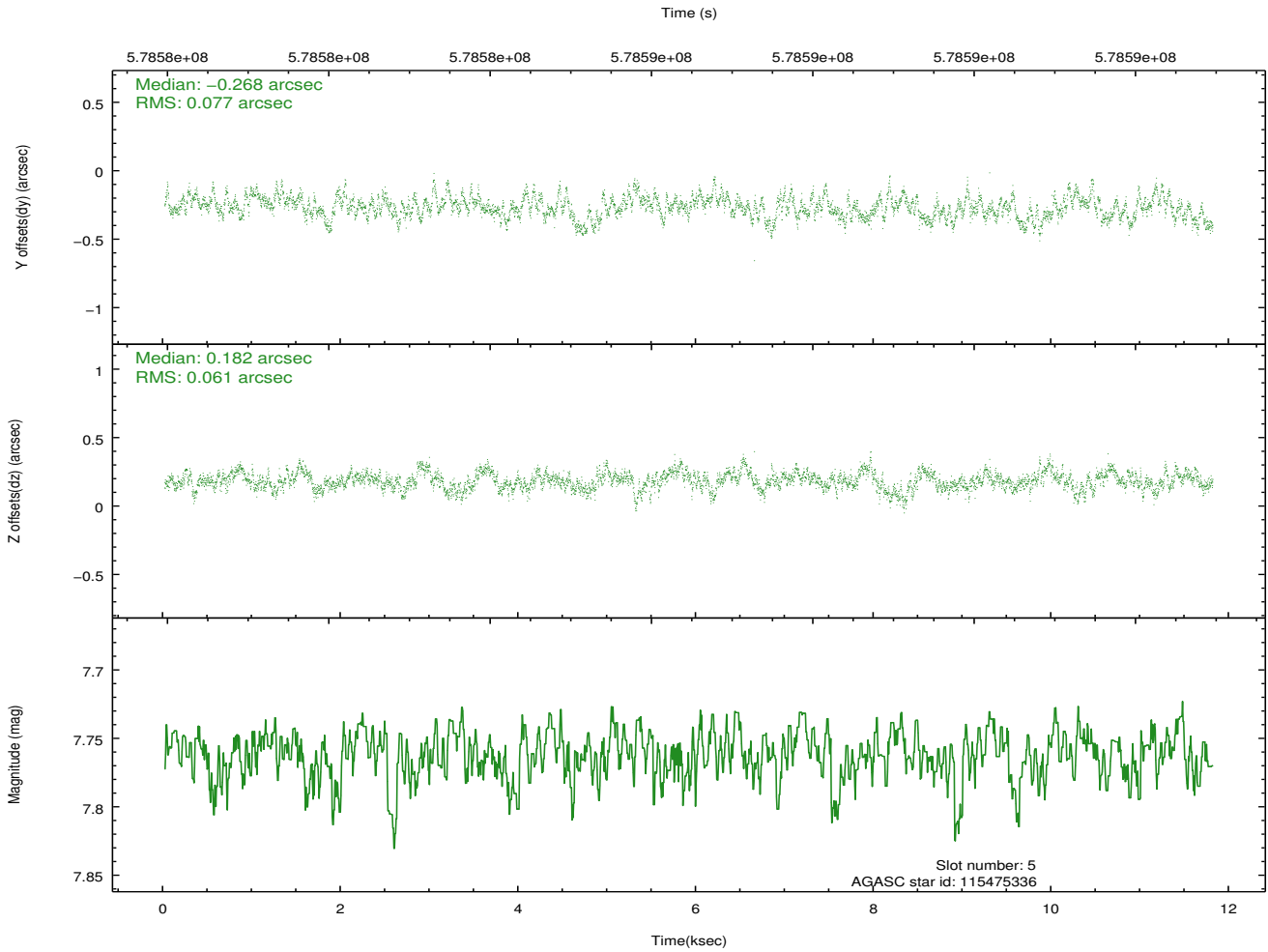
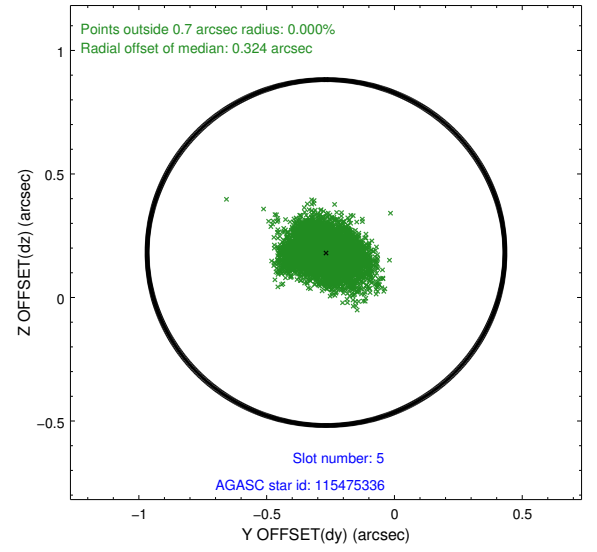
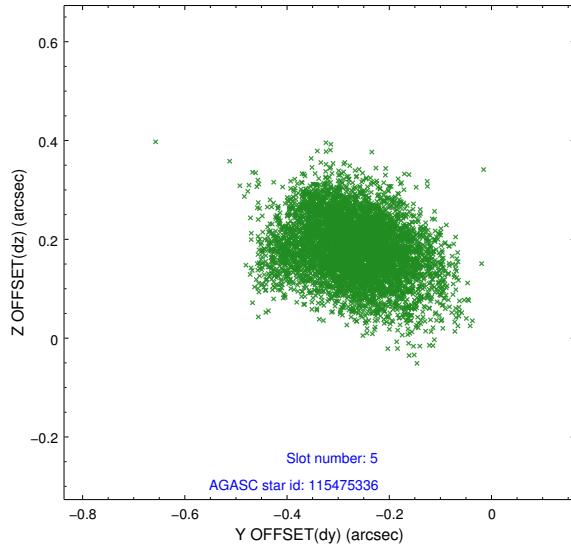
### 2.4.1 Slot 3



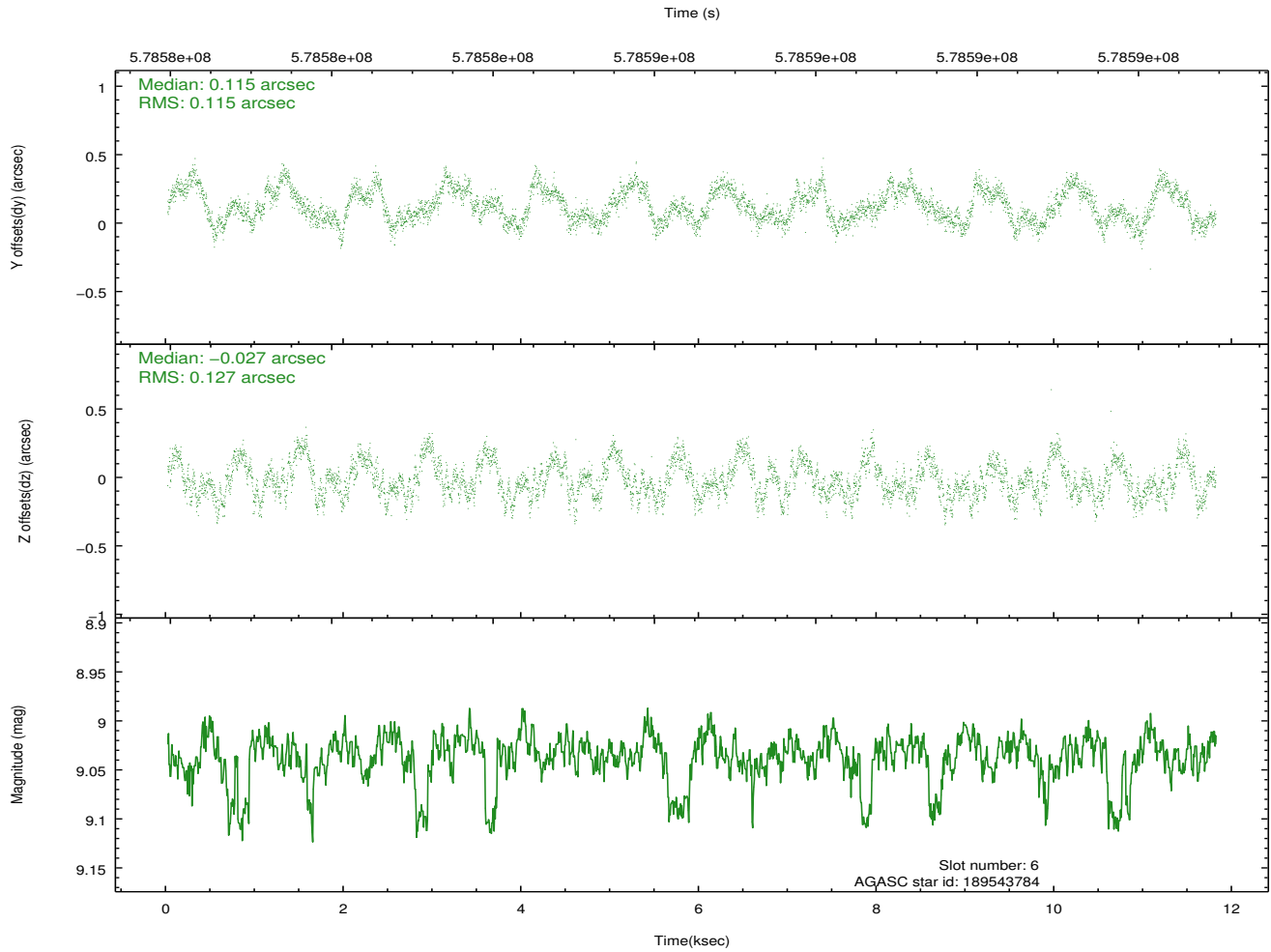
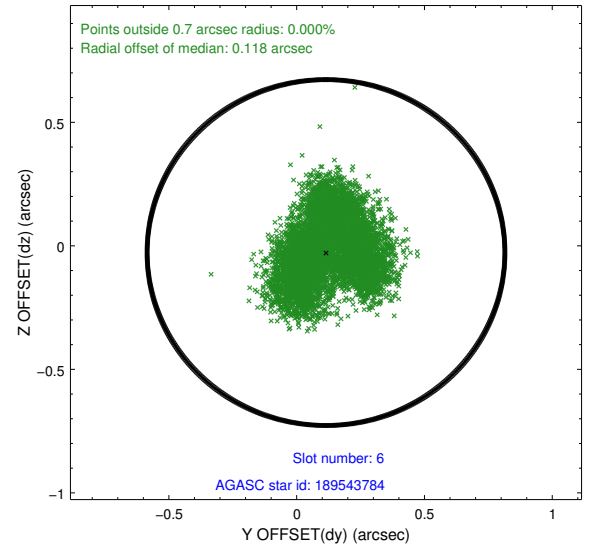
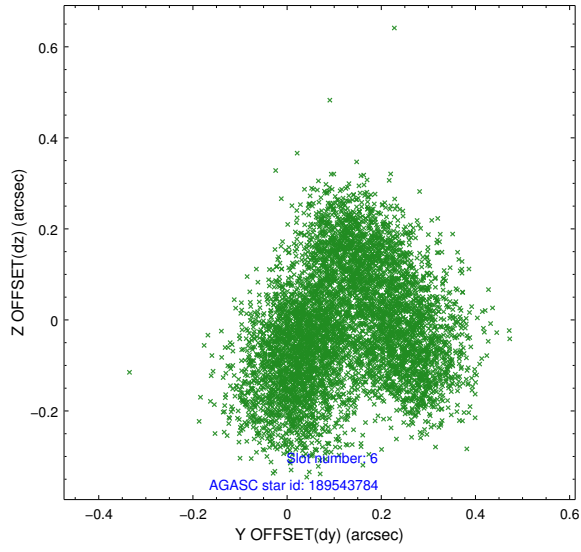
## 2.4.2 Slot 4



### 2.4.3 Slot 5



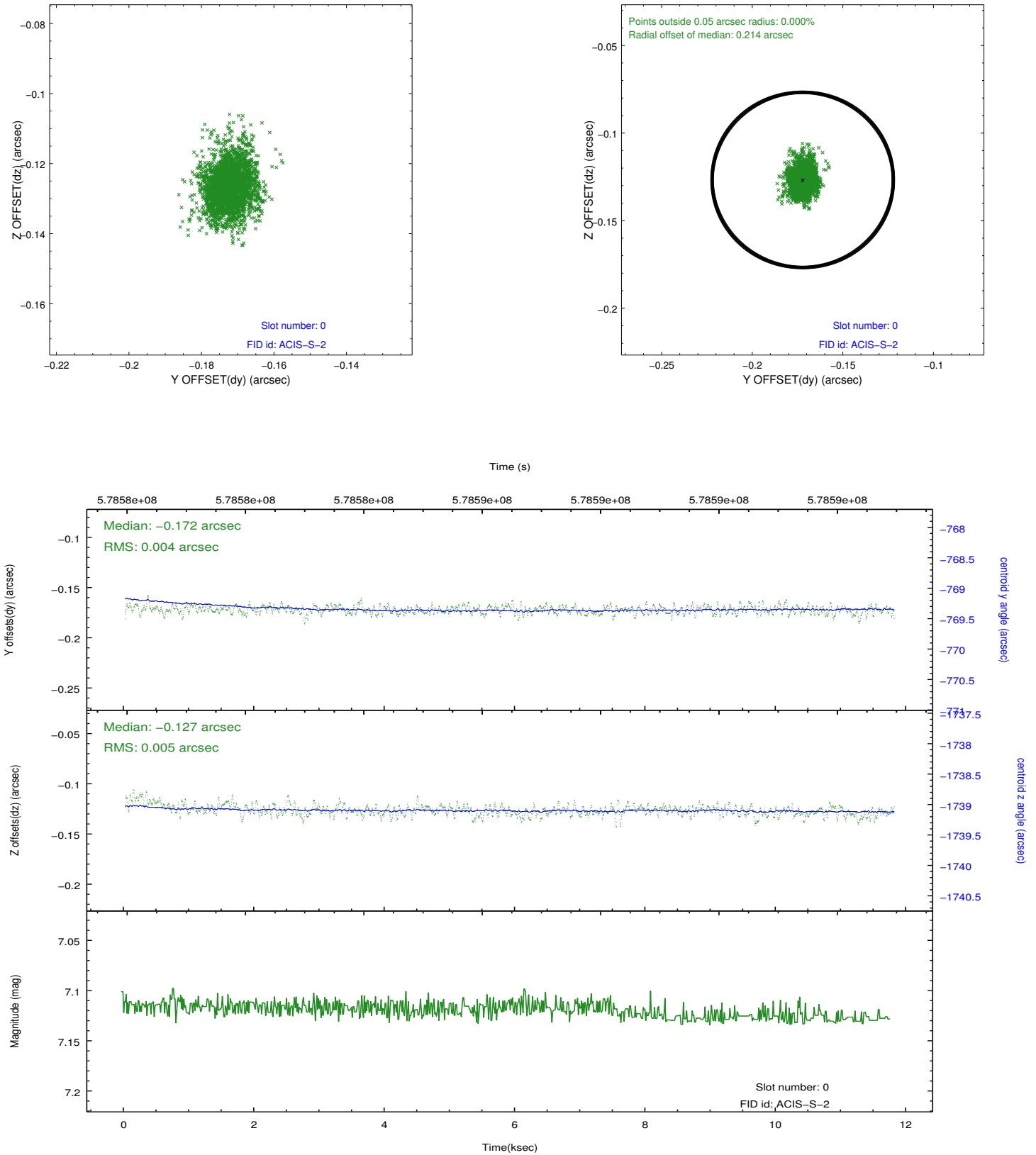
## 2.4.4 Slot 6



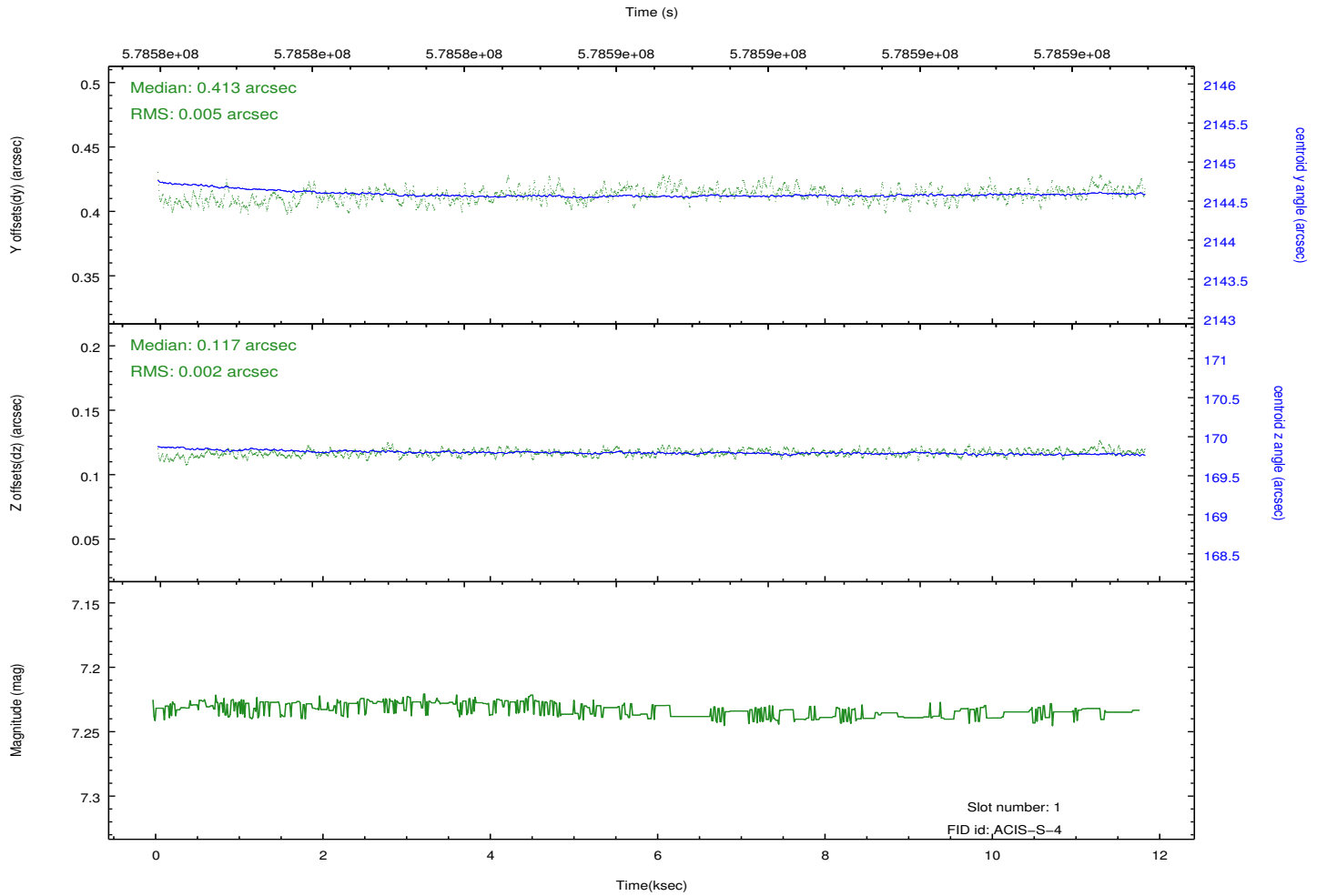
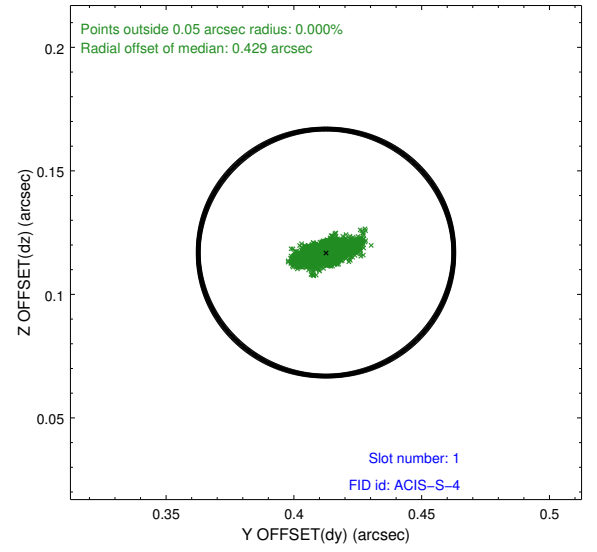
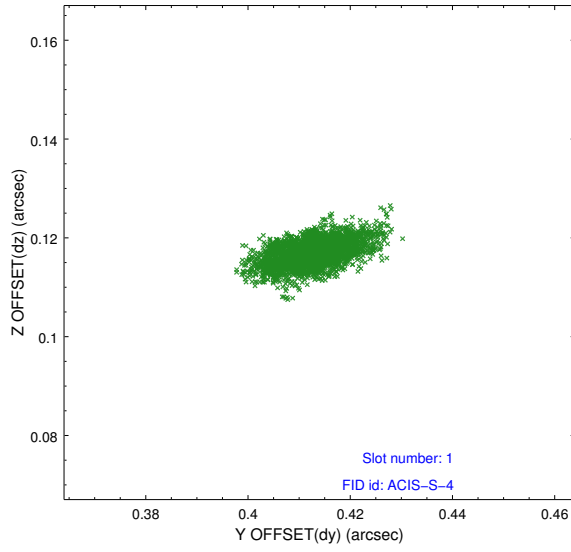


## 2.5 FID Slots

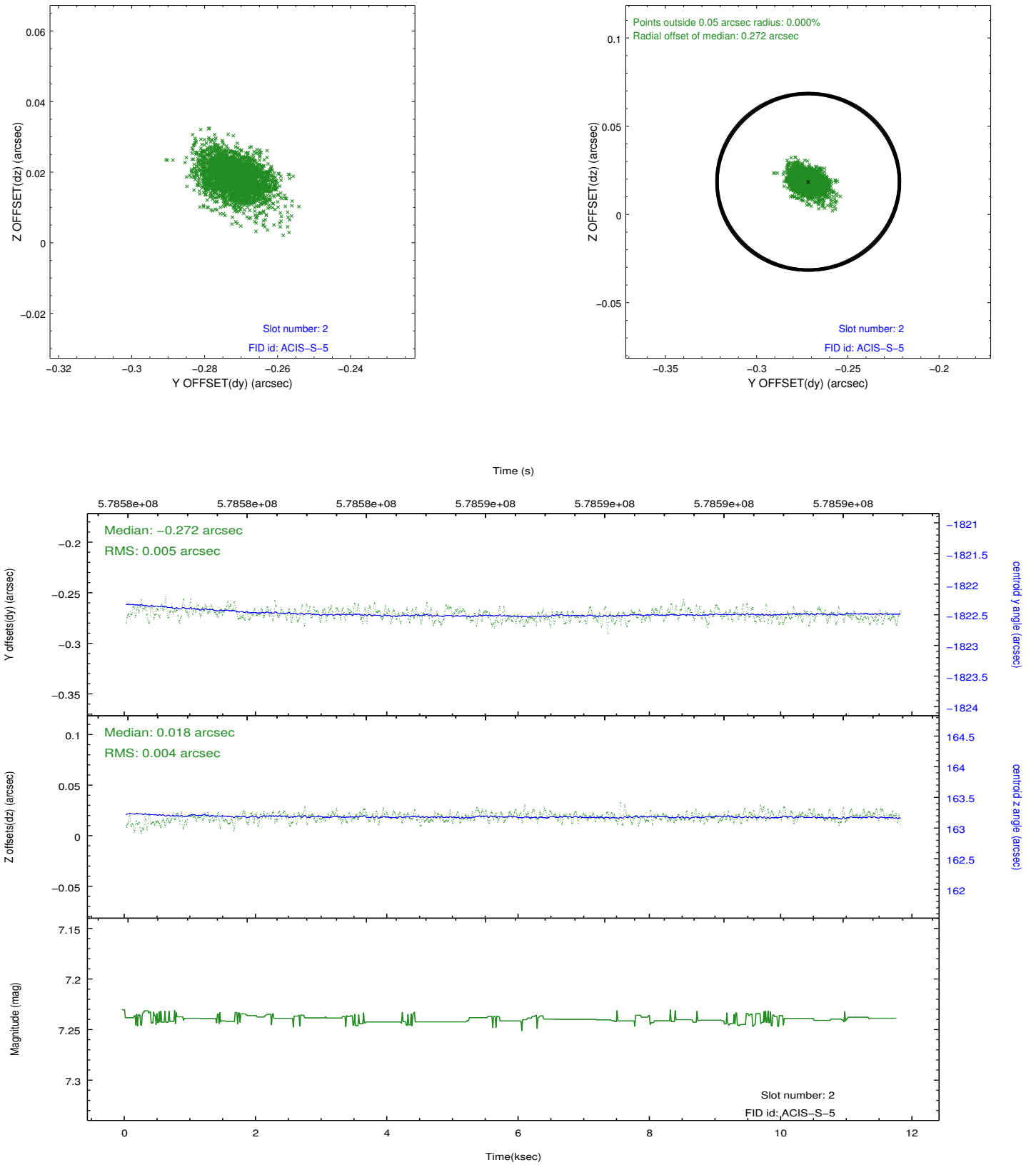
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2016.05.04
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	11.411100087881

### A.2 Comments

The guide star in slot 7 was removed from the aspect solution due to poor data quality. The aspect solution is improved by the removal of this star from the solution.