

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 2026 - L2 Version 3  
Chandra X-Ray Center

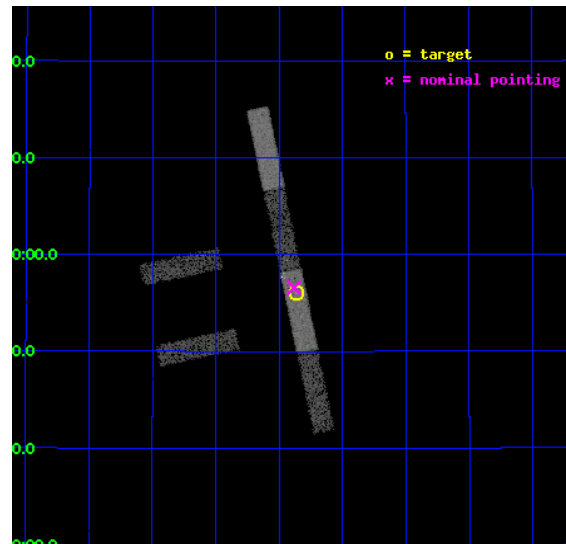
L2 Processing Date : Sep 6 2012

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# 1 Front

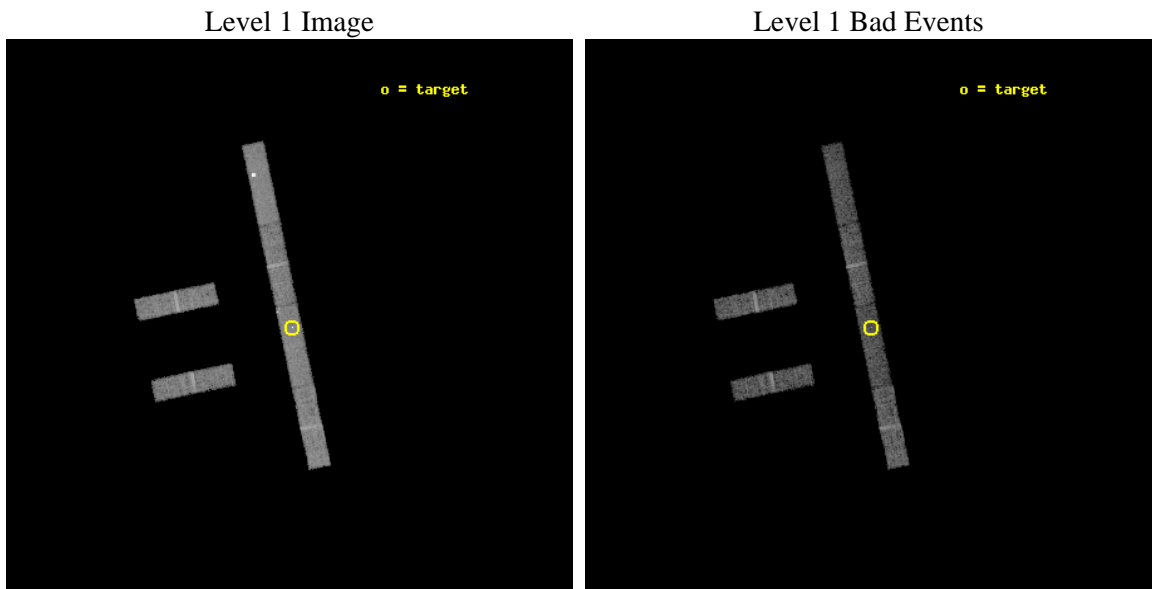
seq_num	600160	Sequence number
obs_id	2026	Observation id
title	PROBING THE NATURE OF SUPER-LUMINOUS X-RAY SOURCES IN NEARBY GALAXIES	Proposal title
observer	Dr Timothy Roberts	Principal investigator
object	NGC 4559 X-1	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	188.966667	Observer's specified target RA [deg]
dec_targ	27.933611	Observer's specified target Dec [deg]
ra_nom	188.97088546298	Nominal RA [deg]
dec_nom	27.94274482303	Nominal Dec [deg]
roll_nom	78.15852963667	Nominal Roll [deg]
revision	3	Processing version of data
ontime	9725.0999473035	Sum of GTIs [s]
livetime	9375.3154508465	Livetime [s]
ontime2	9725.0999473035	Sum of GTIs [s]
ontime3	9725.0999473035	Sum of GTIs [s]
ontime5	9725.0999473035	Sum of GTIs [s]
ontime6	9725.0999473035	Sum of GTIs [s]
ontime7	9725.0999473035	Sum of GTIs [s]
ontime8	9725.0999473035	Sum of GTIs [s]
l2events	28237	Number of level 2 events



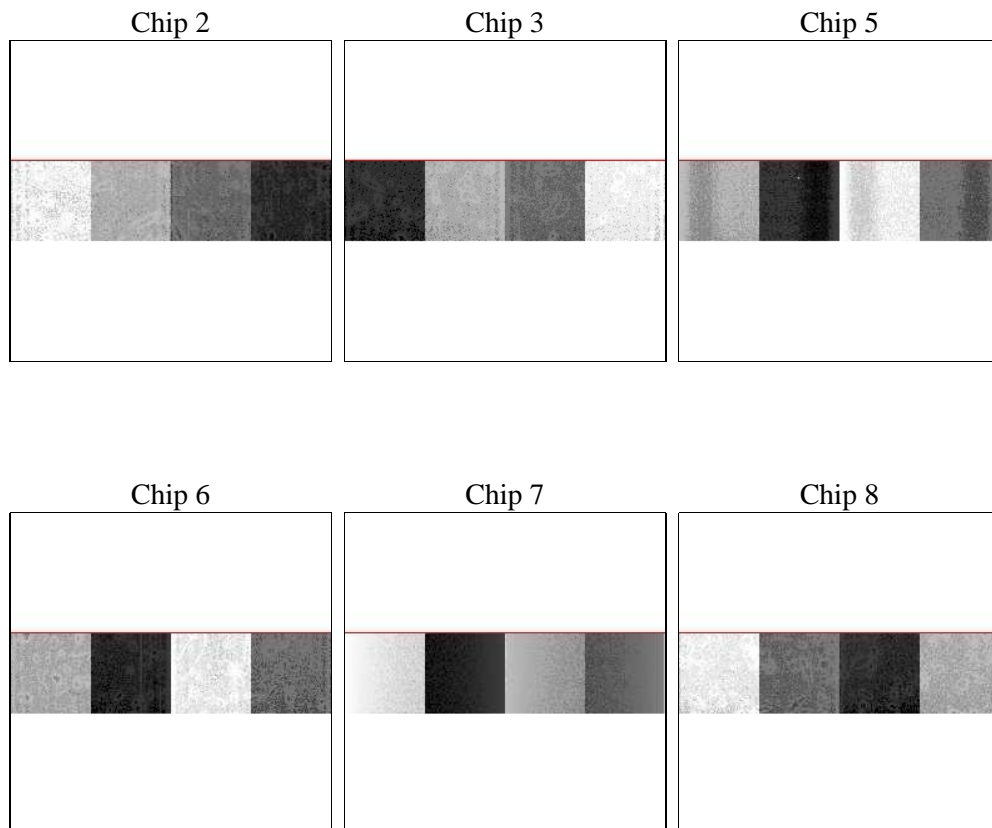
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	9500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	9725.0999473035	Sum of GTIs [s]
caldsver	4.5.1.1	&#160	ontime2	9725.0999473035	Sum of GTIs [s]
date	2012-09-06T11:45:10	Date and time of file creation	ontime3	9725.0999473035	Sum of GTIs [s]
revision	3	Processing version of data	ontime5	9725.0999473035	Sum of GTIs [s]
			ontime6	9725.0999473035	Sum of GTIs [s]
			ontime7	9725.0999473035	Sum of GTIs [s]
			ontime8	9725.0999473035	Sum of GTIs [s]
			l1events	136440	Number of level 1 events

### 2.1.4 Events

	<b>ccd 2</b>	<b>ccd 3</b>	<b>ccd 5</b>	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	20981	17992	30553	19211	23272	24431
rejected events	18769	15885	12308	16819	12039	20137
rejected %	89%	88%	40%	87%	51%	82%

	<b>ccd 2</b>	<b>ccd 3</b>	<b>ccd 5</b>	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	887	854	9283	983	1710	1350
	4%	4%	30%	5%	7%	5%
grade 1 events	6	5	49	9	21	9
	0%	0%	0%	0%	0%	0%
grade 2 events	474	396	3132	498	2462	923
	2%	2%	10%	2%	10%	3%
grade 3 events	296	296	703	337	1177	508
	1%	1%	2%	1%	5%	2%
grade 4 events	269	298	636	273	1192	503
	1%	1%	2%	1%	5%	2%
grade 5 events	538	543	1776	646	1972	791
	2%	3%	5%	3%	8%	3%
grade 6 events	347	344	5092	379	4988	1167
	1%	1%	16%	1%	21%	4%
grade 7 events	18164	15256	9882	16086	9750	19180
	86%	84%	32%	83%	41%	78%

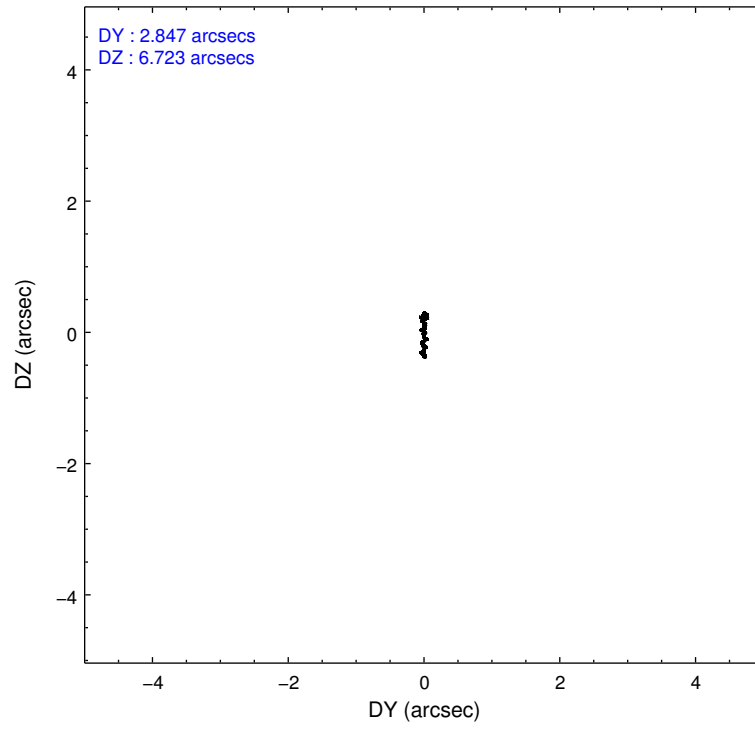
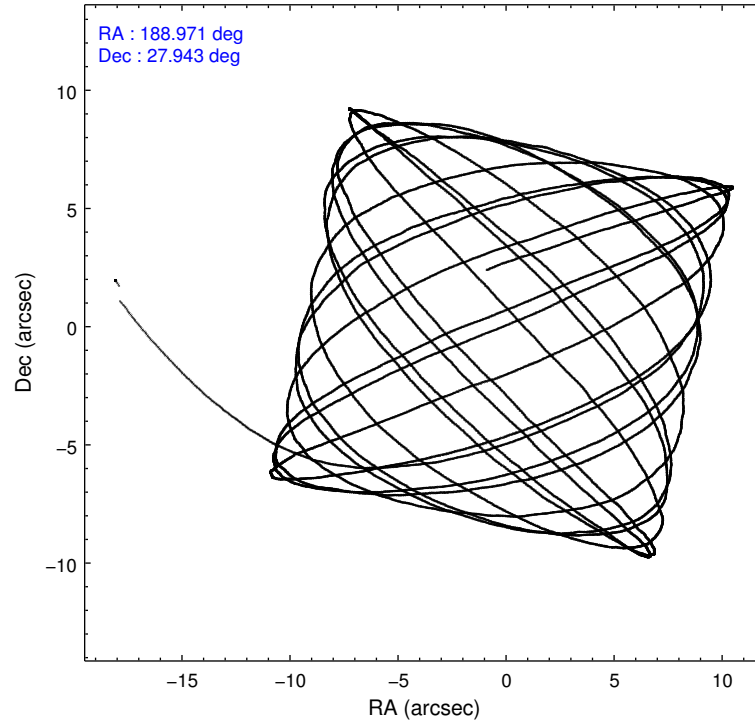


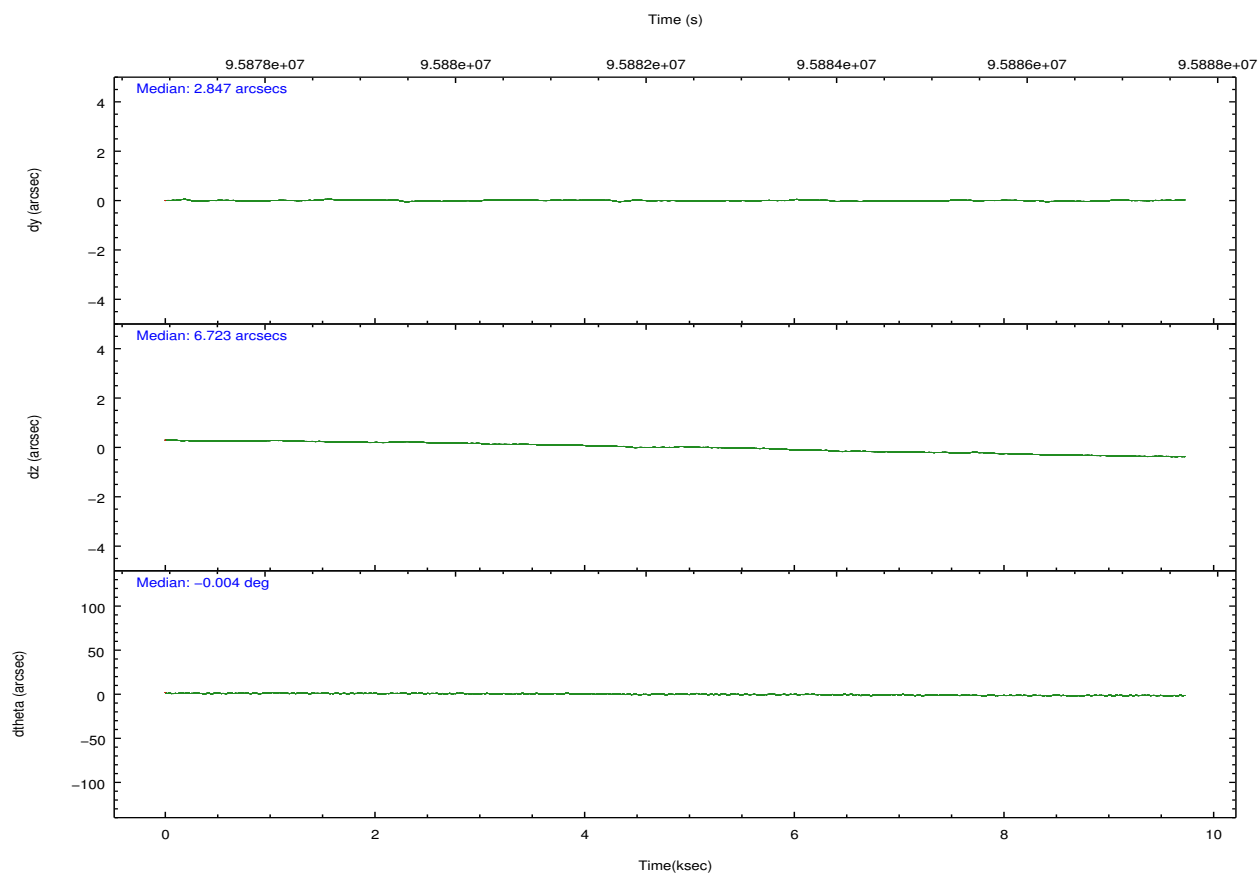
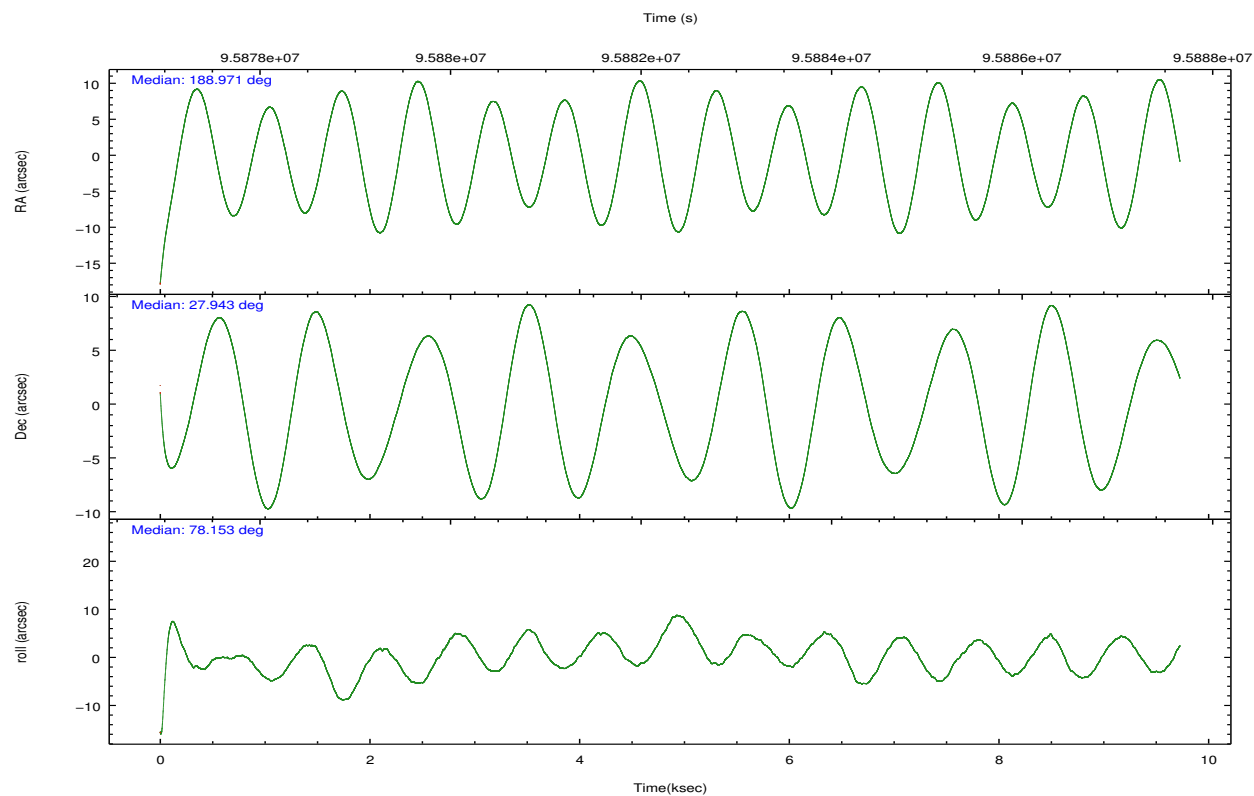
## 2.2 Compared Parameters

Parameter	Planned	Actual
Instrument	ACIS	ACIS
Detector	ACIS-235678	ACIS-235678
Grating	NONE	NONE
Data mode	FAINT	FAINT
Observation mode	POINTING	POINTING
[deg] Pointing RA	188.980757	188.9708854629809
[deg] Pointing Dec	27.916824	27.9427448230303
[deg] Pointing Roll	77.997312	78.1585296366698
[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)	95877667.184000	95876679.334116
Observation start date	2001-01-14T16:40:03	2001-01-14T16:24:39
[s] Observation end time (MET)	95887167.184000	95887655.034537
Observation end date	2001-01-14T19:18:23	2001-01-14T19:27:35
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	CUSTOM	1/4
Subarray start row	385	385
Subarray row count	256	256
Alternating exposures requested	N	N
[s] Primary exposure time	0.000000	1.1

## 2.3 Aspect



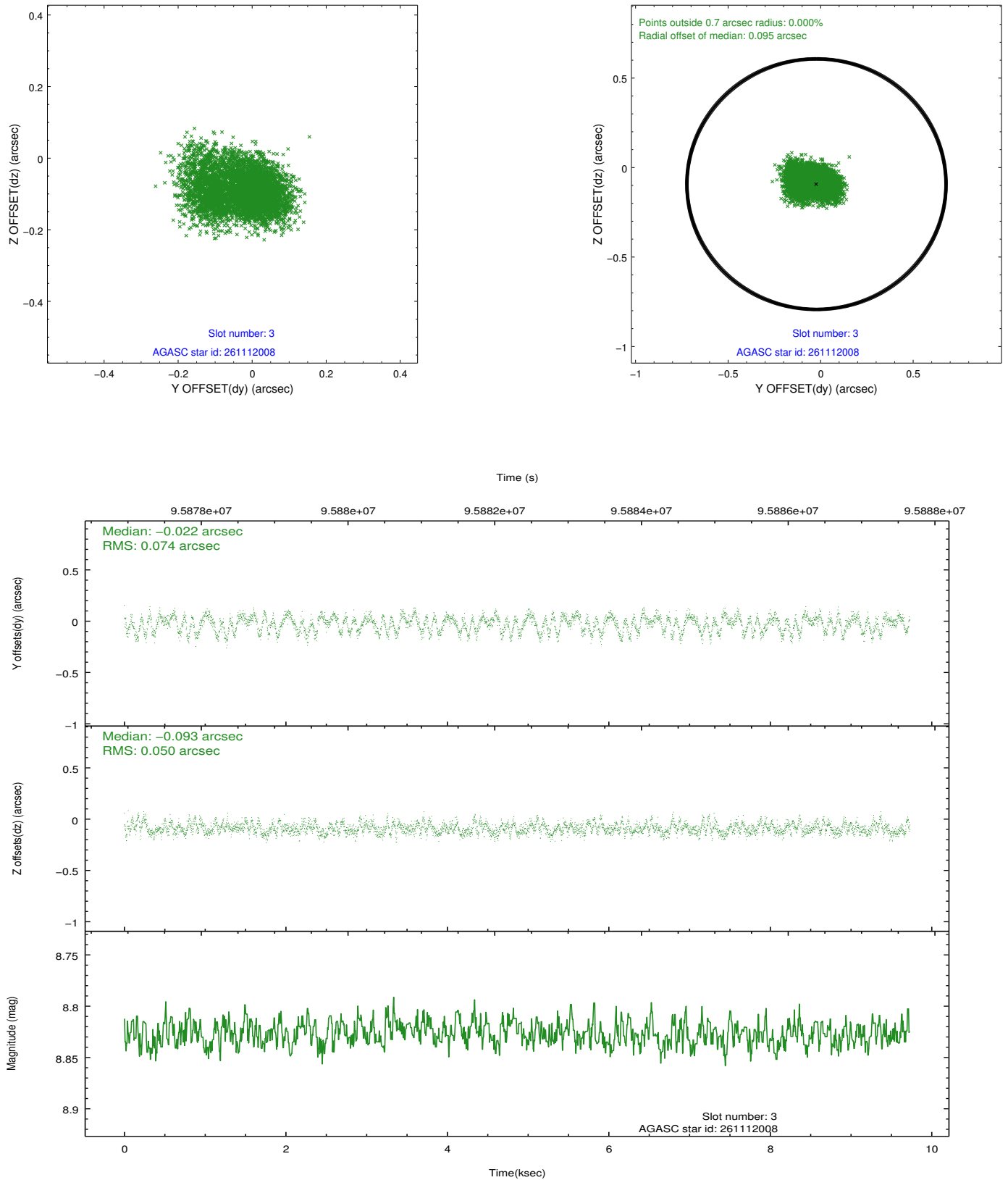


### Slot Statistics

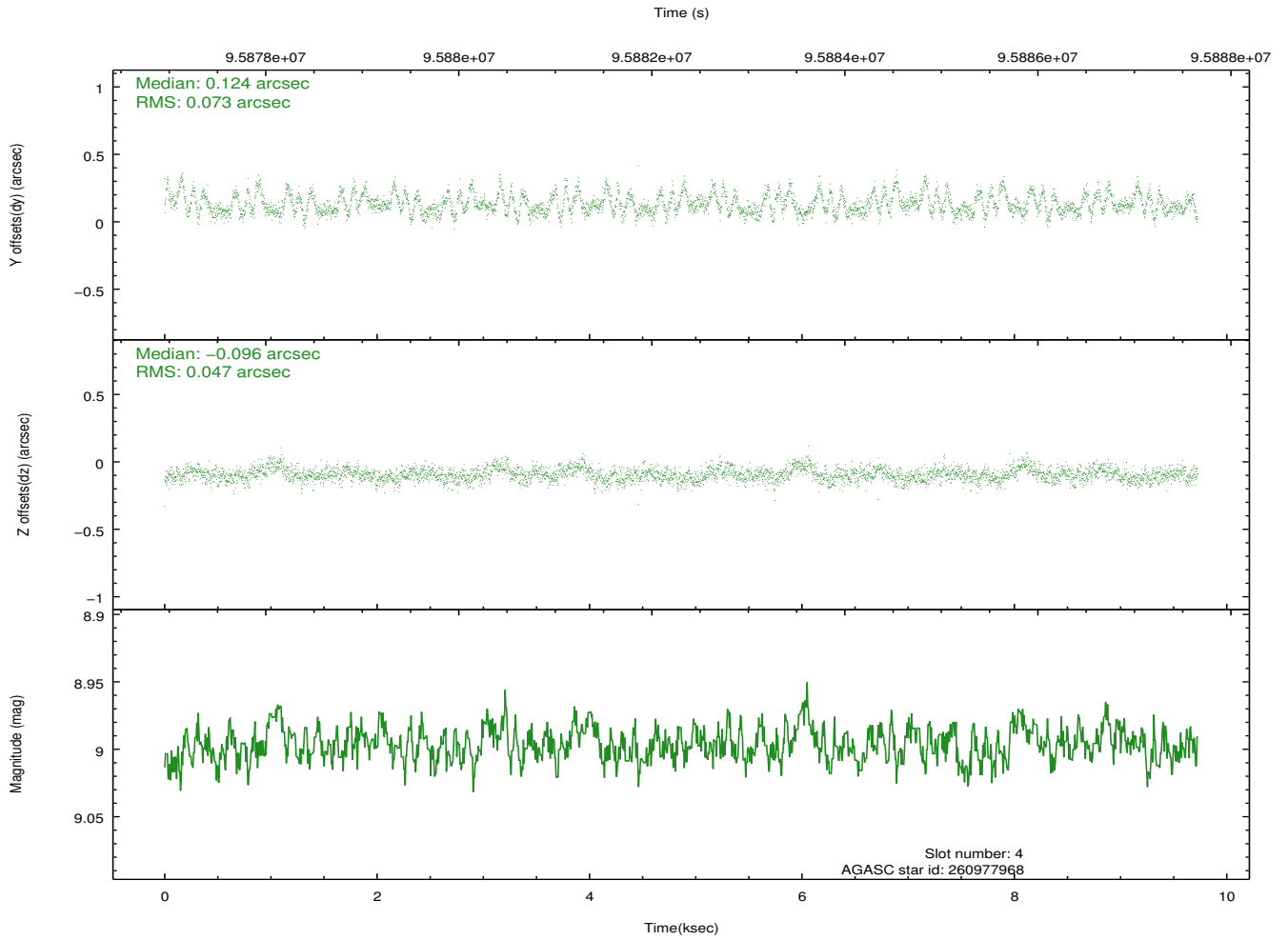
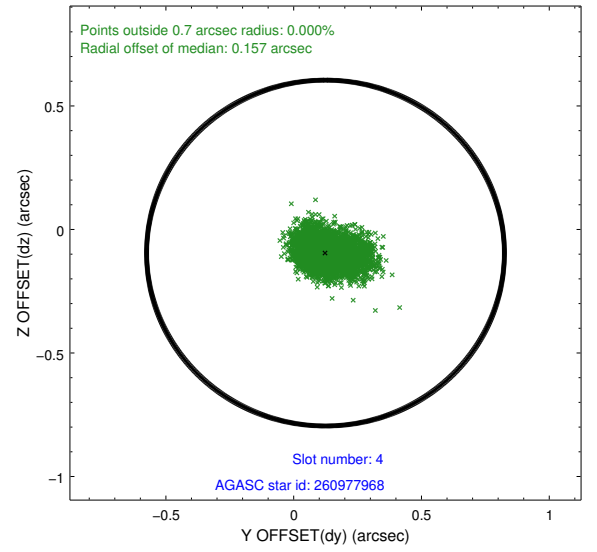
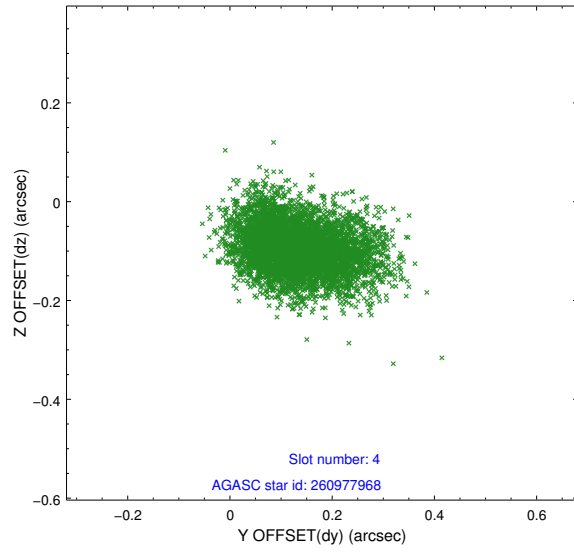
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	2373	-0.014	0.016	0.010	0.016	0.000000	0.000000	-755.49	-1727.80
1	FID	ACIS-S-4	7.20	2373	-0.040	0.003	0.007	0.012	0.000000	0.000000	2157.51	180.10
2	FID	ACIS-S-5	7.24	2373	0.023	-0.009	0.008	0.014	0.000000	0.000000	-1807.60	174.39
3	GUIDE	261112008	8.83	4746	-0.022	-0.093	0.095	0.154	188.403981	28.081490	202.83	1916.33
4	GUIDE	260977968	9.00	4745	0.124	-0.096	0.090	0.152	188.216909	27.552758	-1781.72	2114.20
5	GUIDE	261097656	9.10	4743	0.133	0.046	0.064	0.104	188.726234	27.455627	-1792.64	450.87
6	GUIDE	261101336	9.31	4746	-0.100	-0.034	0.080	0.129	188.594392	28.320780	1168.96	1500.91
7	GUIDE	261110376	9.69	4742	-0.135	0.172	0.114	0.181	189.377990	28.226023	1352.97	-999.61

## 2.4 Star Slots

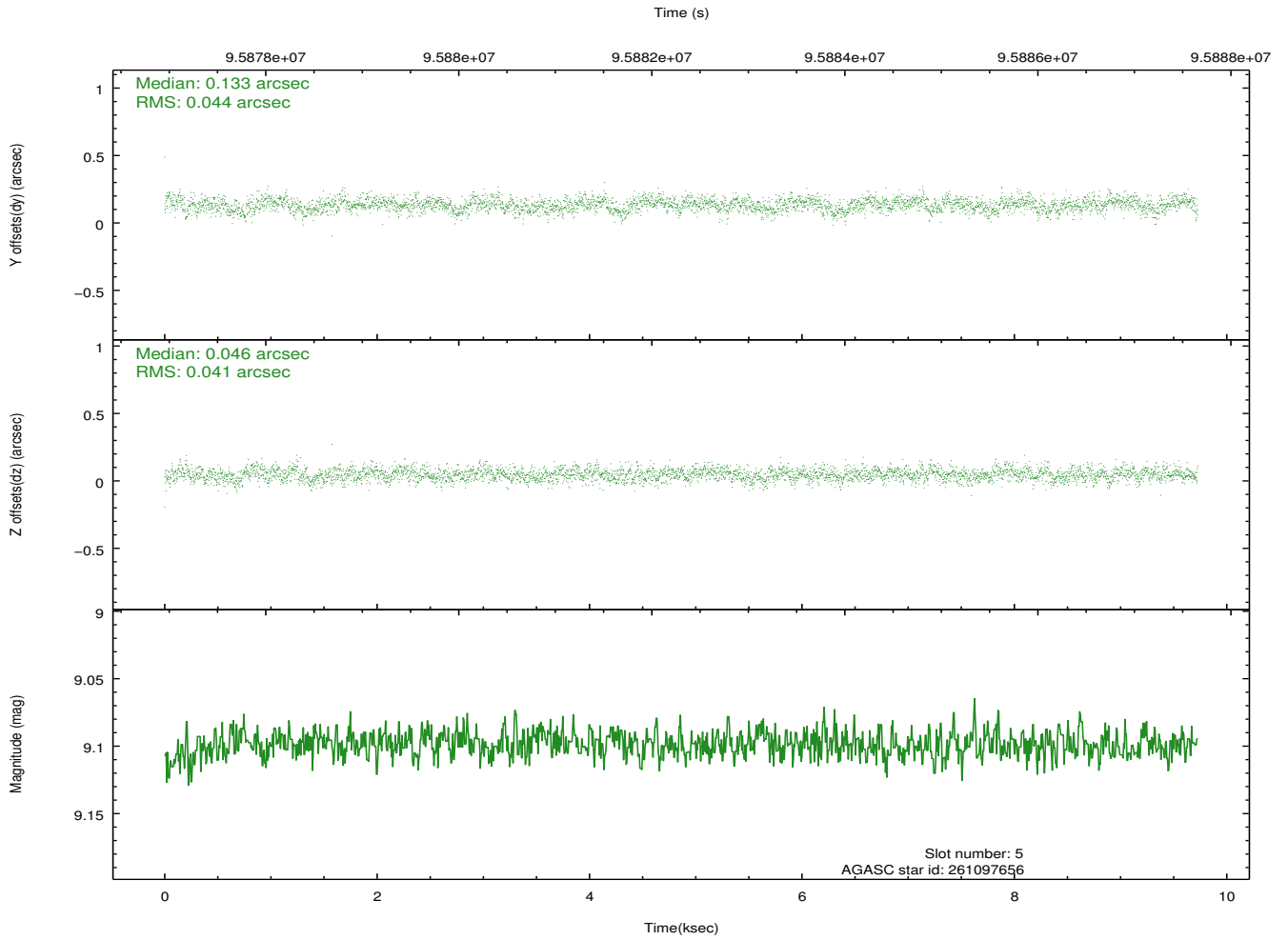
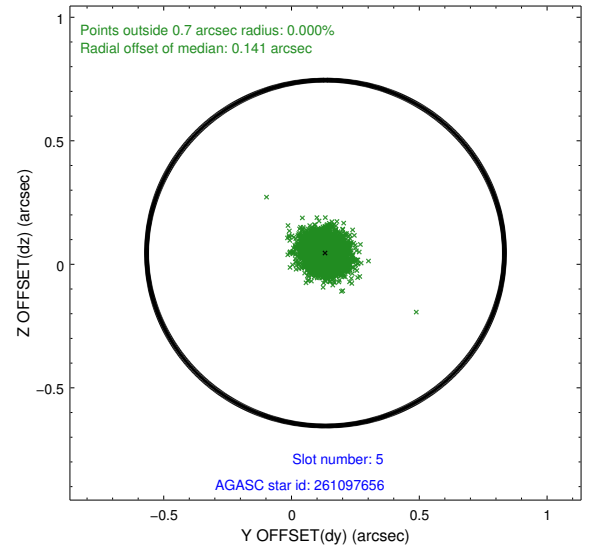
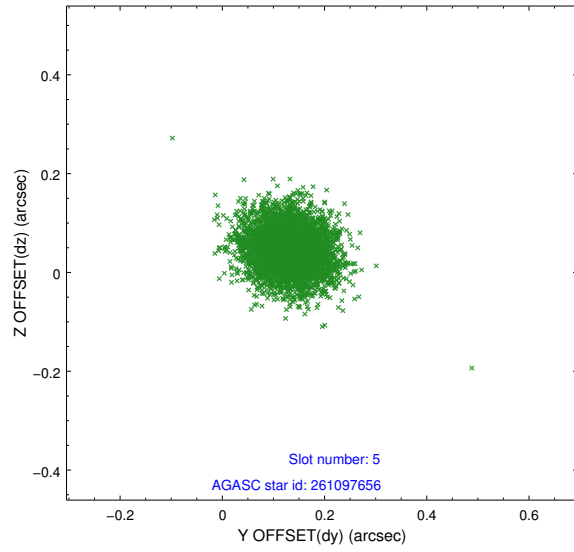
### 2.4.1 Slot 3



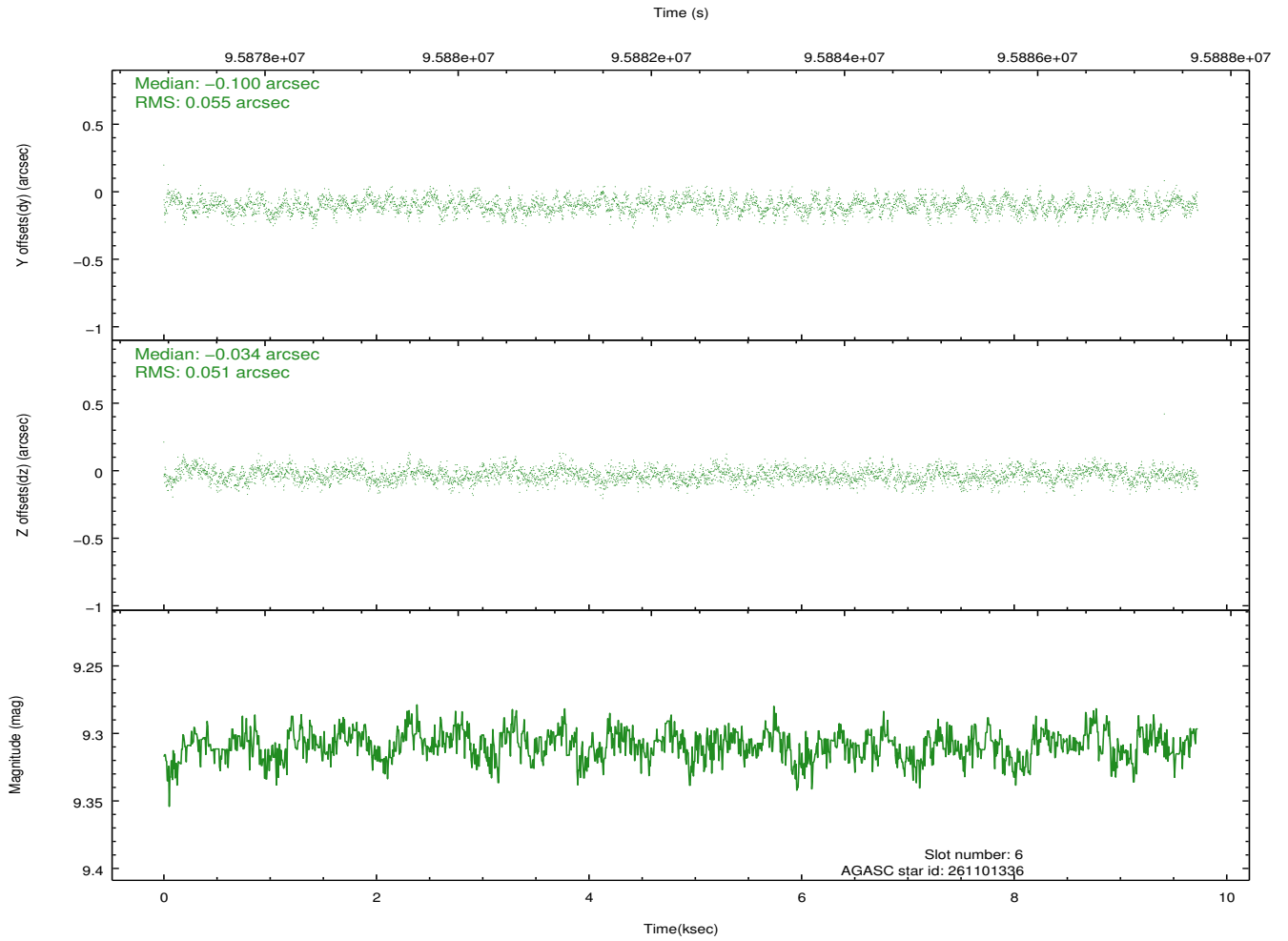
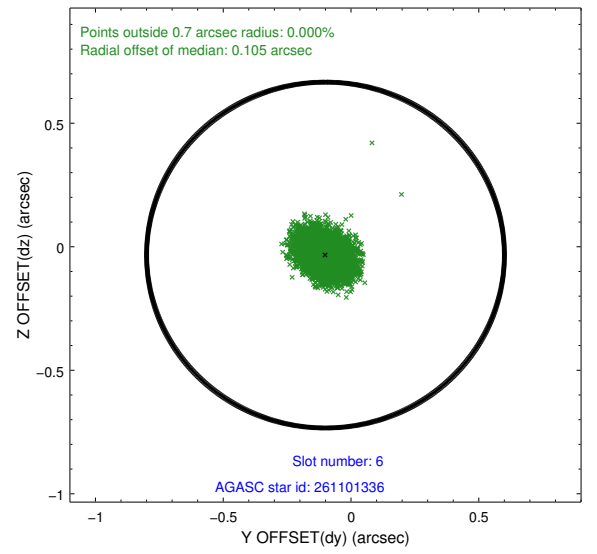
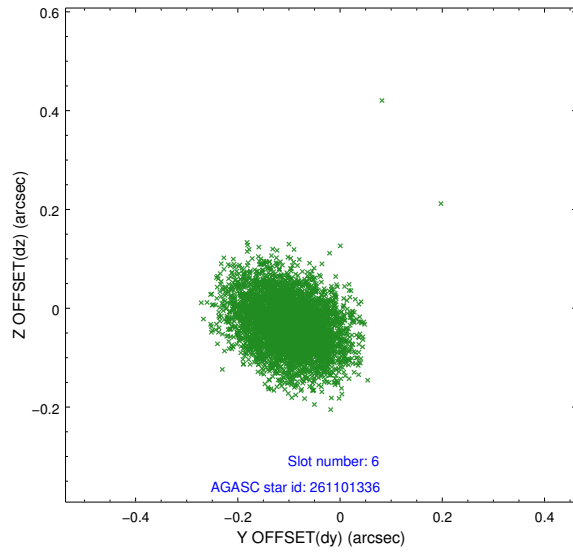
## 2.4.2 Slot 4



### 2.4.3 Slot 5

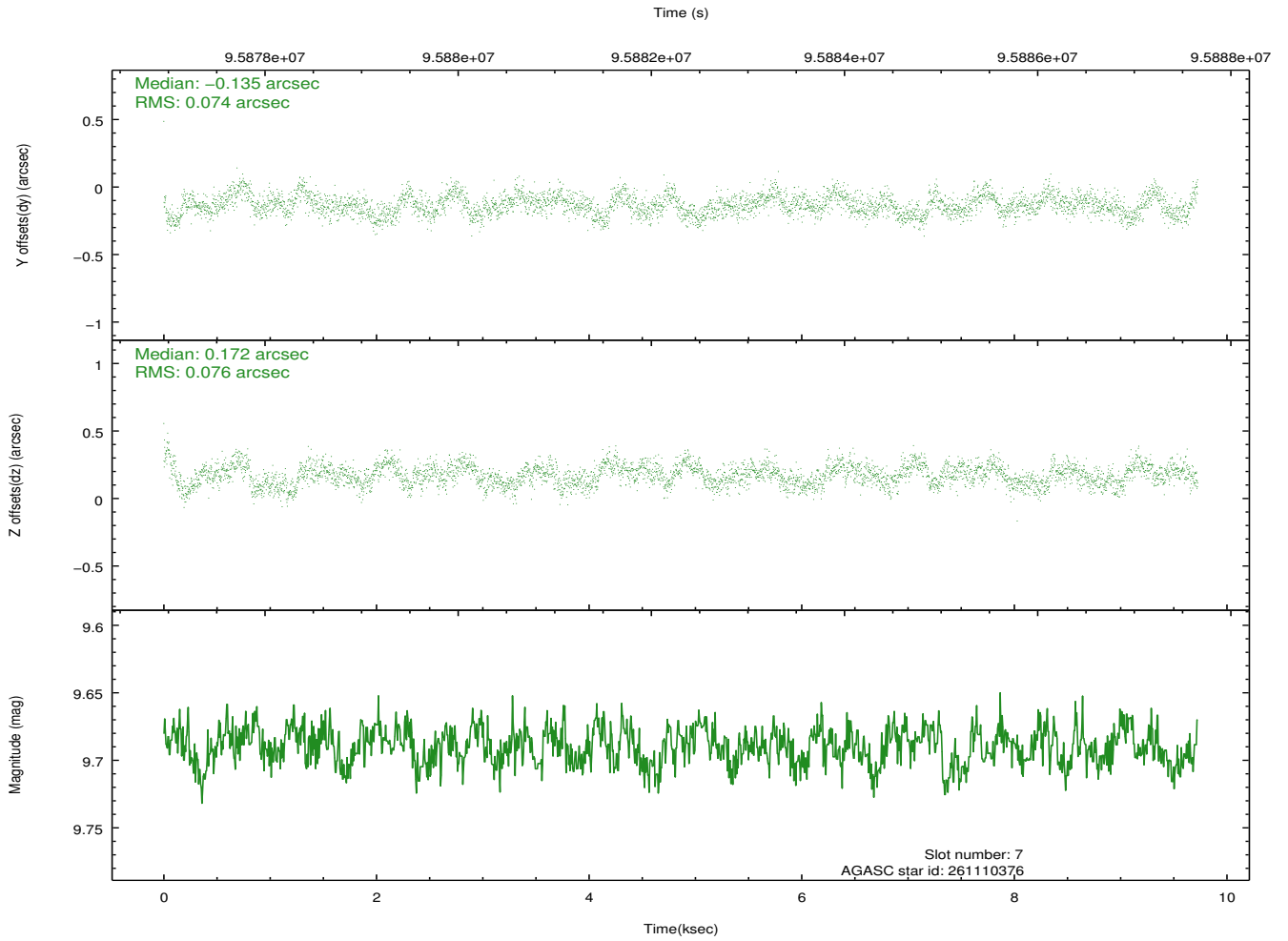
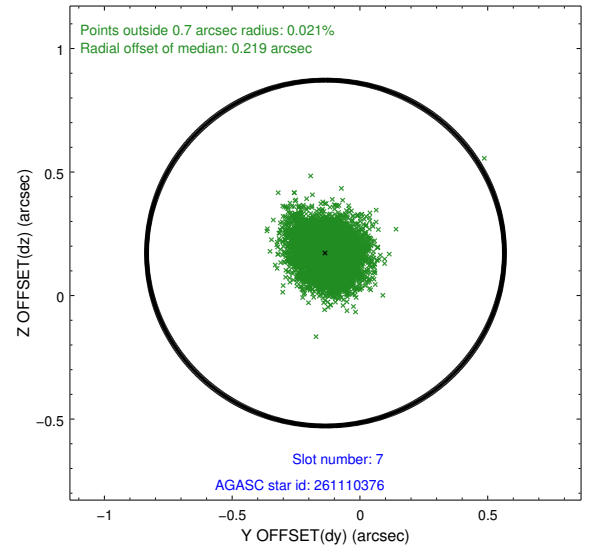
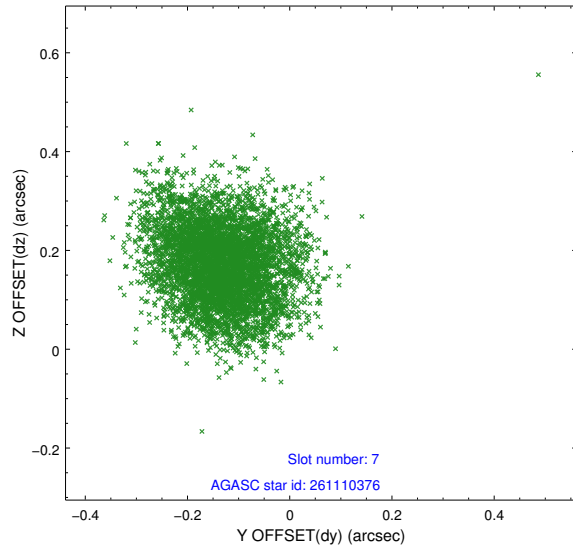


## 2.4.4 Slot 6



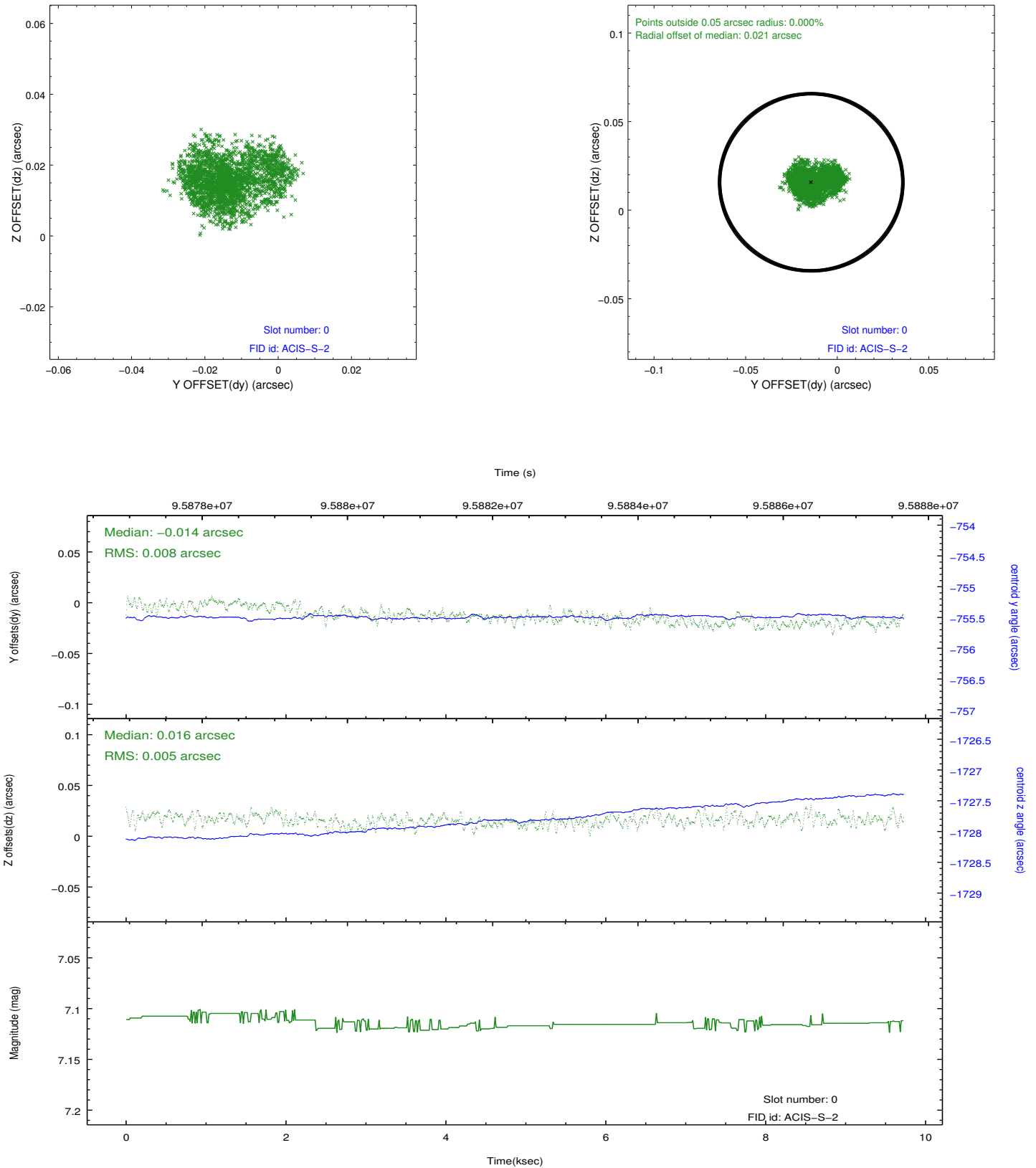


### 2.4.5 Slot 7

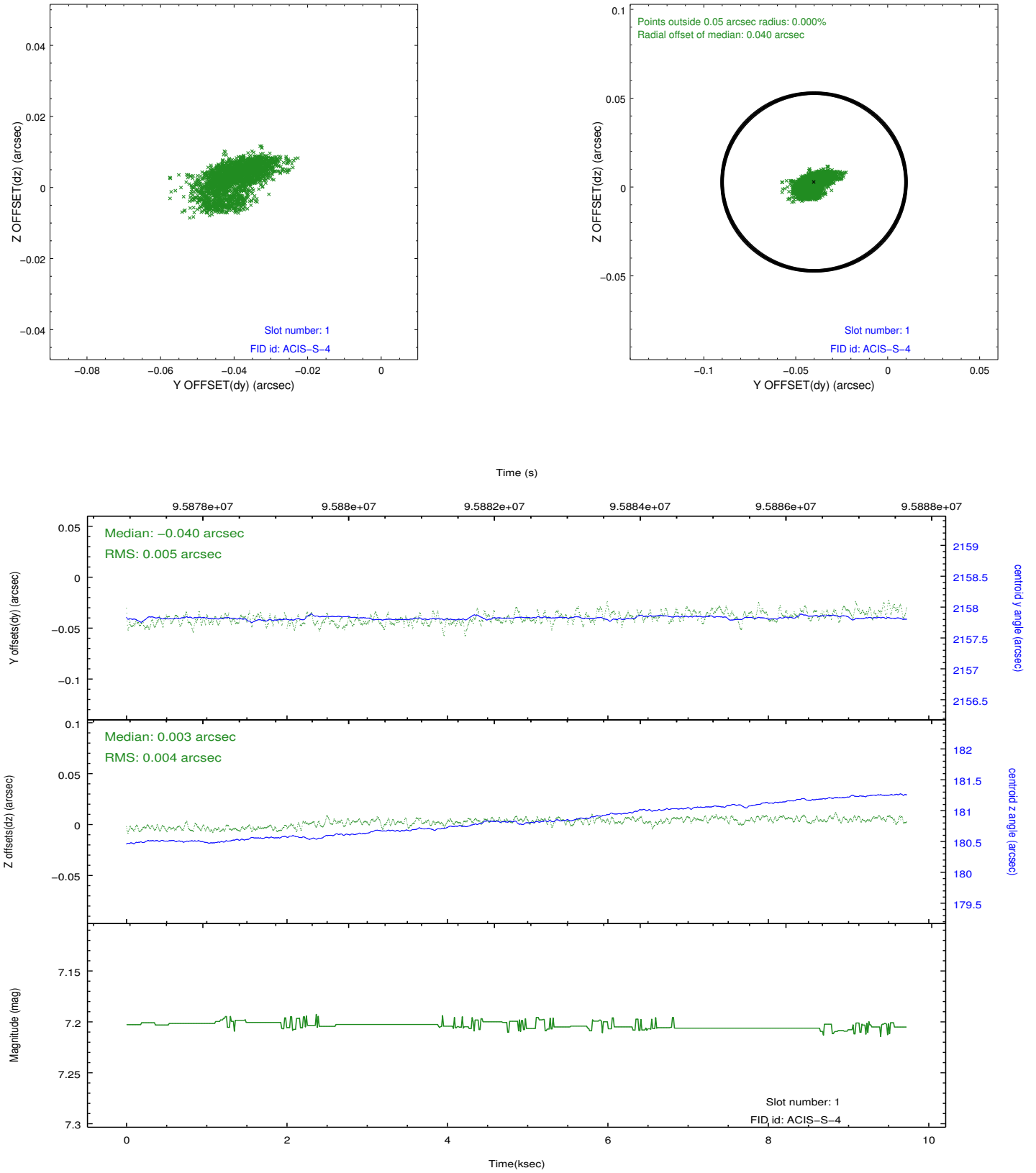


## 2.5 FID Slots

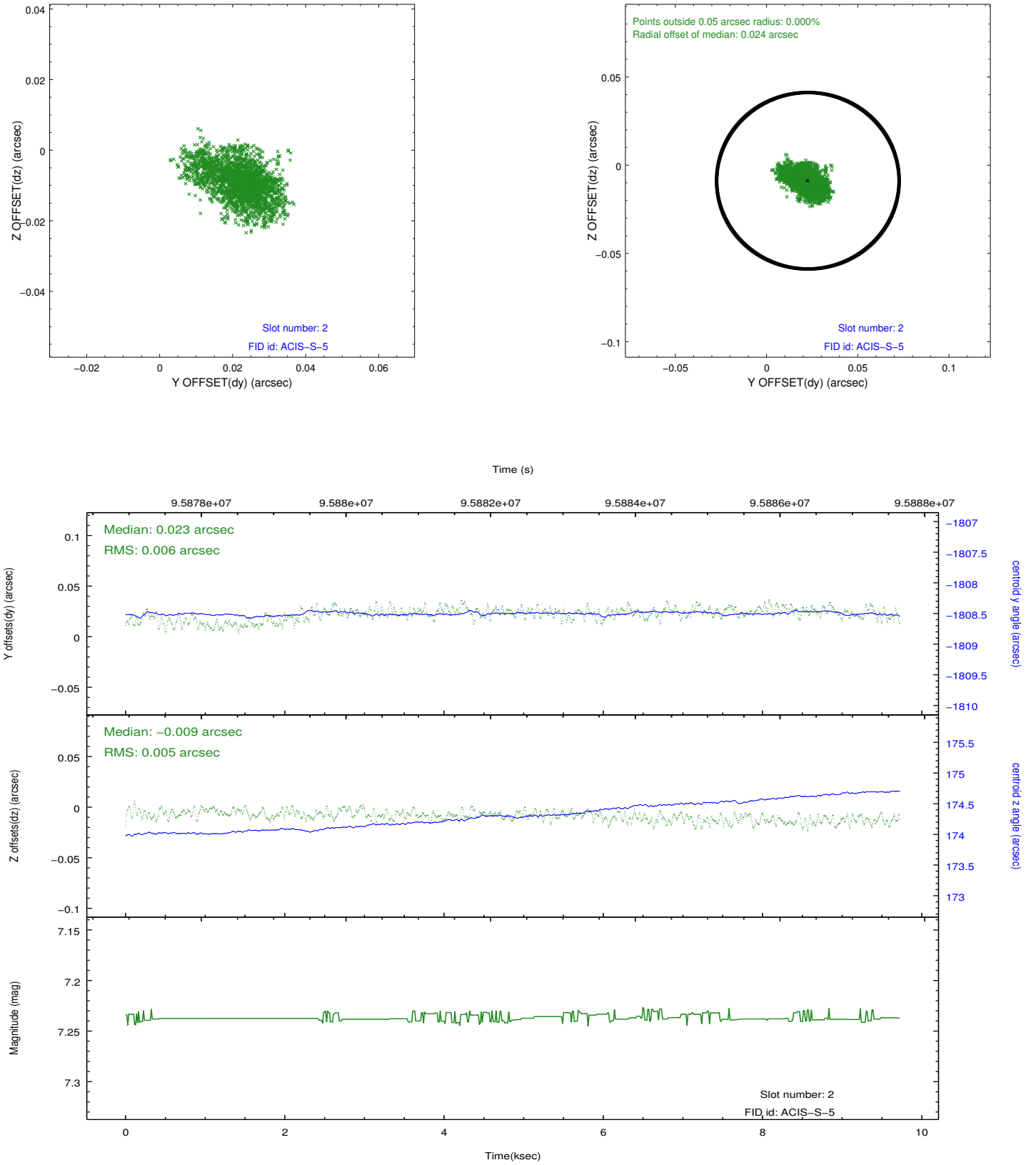
### 2.5.1 Slot 0



## 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)	2012.09.17
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.725

### A.2 Comments