

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 12513 - L2 Version 2  
Chandra X-Ray Center

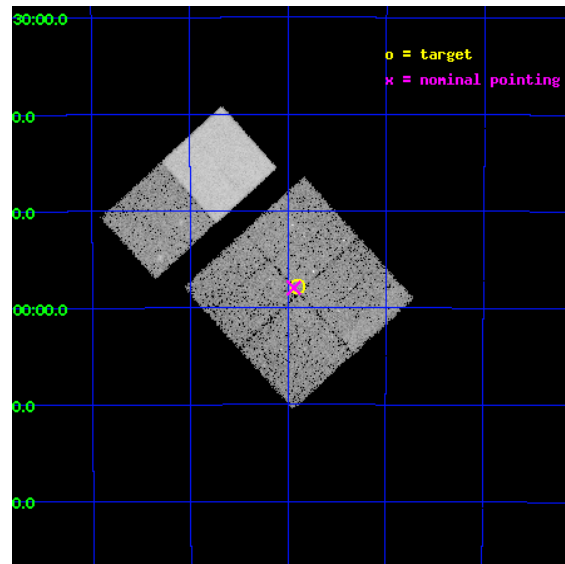
L2 Processing Date : Feb 13 2012

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# 1 Front

seq_num	401254	Sequence number
obs_id	12513	Observation id
title	Census of the Normal Spiral Arm Region	Proposal title
observer	Dr. John Tomsick	Principal investigator
object	Norma Region	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	249.974208	Observer's specified target RA [deg]
dec_targ	-46.962489	Observer's specified target Dec [deg]
ra_nom	249.98494689862	Nominal RA [deg]
dec_nom	-46.965904316391	Nominal Dec [deg]
roll_nom	317.71653902819	Nominal Roll [deg]
revision	2	Processing version of data
ontime	20415.999924004	Sum of GTIs [s]
livetime	20157.480239927	Livetime [s]
ontime0	20415.983520091	Sum of GTIs [s]
ontime1	20415.999924004	Sum of GTIs [s]
ontime2	20415.999924004	Sum of GTIs [s]
ontime3	20415.999924004	Sum of GTIs [s]
ontime6	20415.999924004	Sum of GTIs [s]
ontime7	20415.999924004	Sum of GTIs [s]
l2events	132438	Number of level 2 events

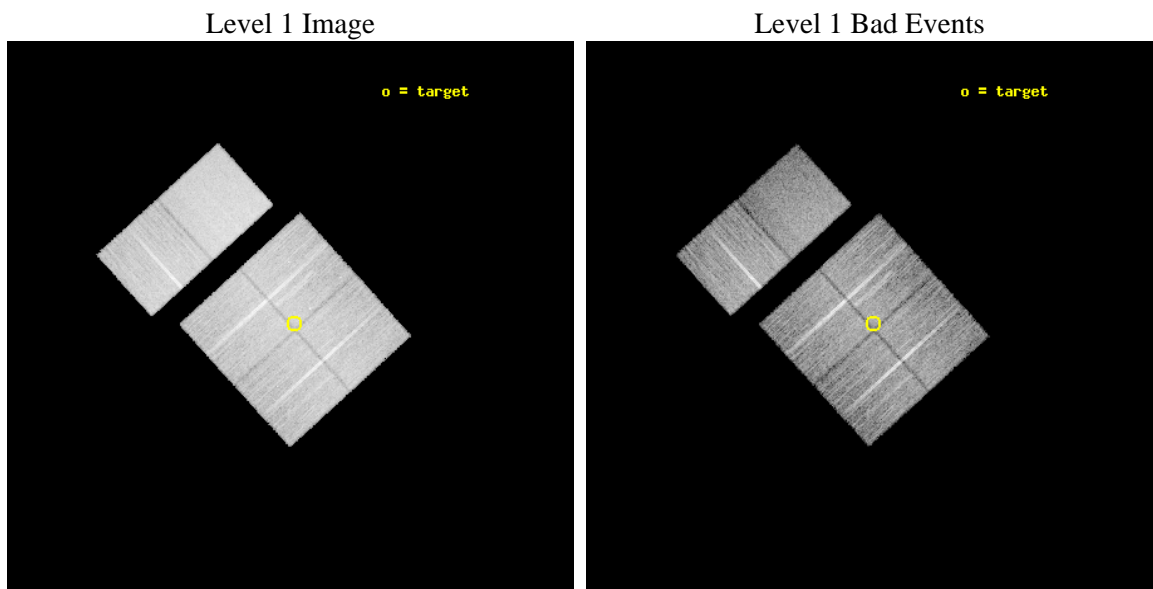




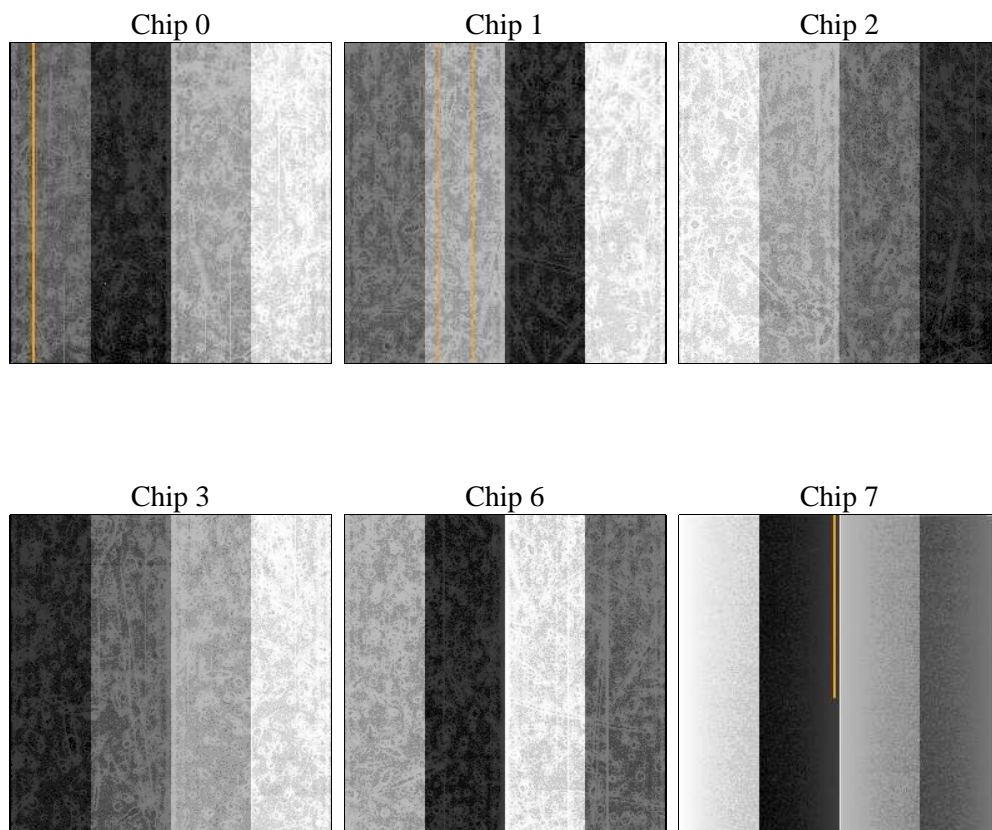
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	20661.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	20415.999924004	Sum of GTIs [s]
caldsver	4.4.7	&#160	ontime0	20415.983520091	Sum of GTIs [s]
date	2012-02-13T11:59:39	Date and time of file creation	ontime1	20415.999924004	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	20415.999924004	Sum of GTIs [s]
			ontime3	20415.999924004	Sum of GTIs [s]
			ontime6	20415.999924004	Sum of GTIs [s]
			ontime7	20415.999924004	Sum of GTIs [s]
			l1events	736396	Number of level 1 events

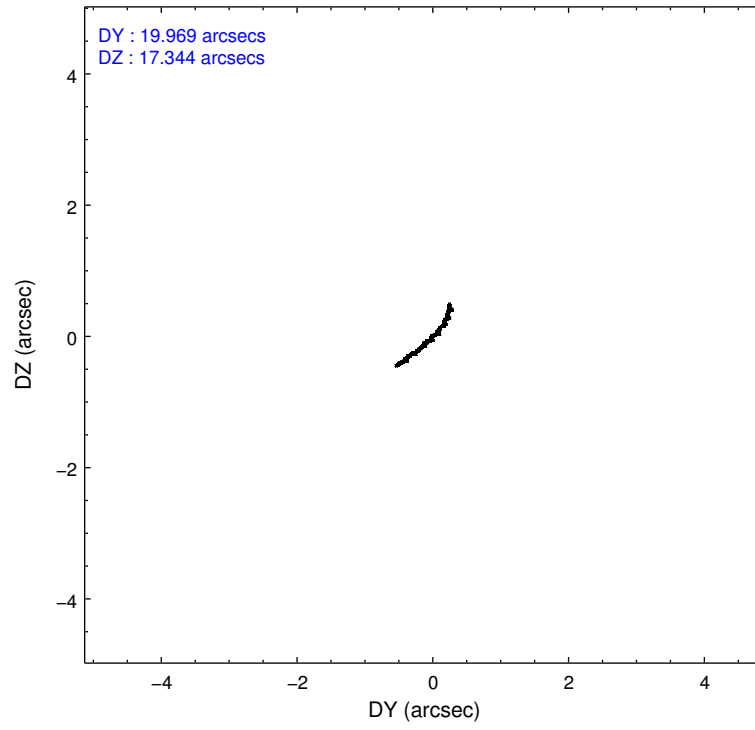
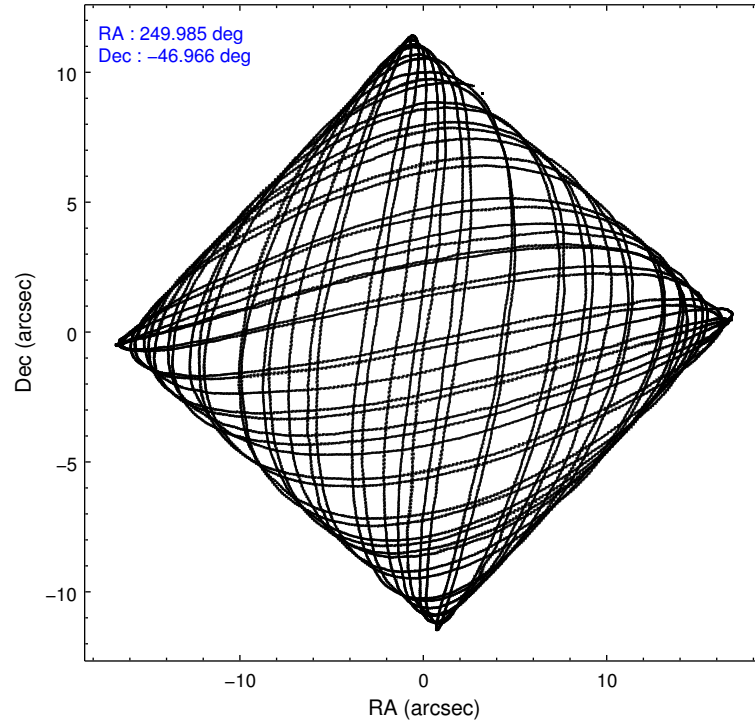
### 2.1.4 Events

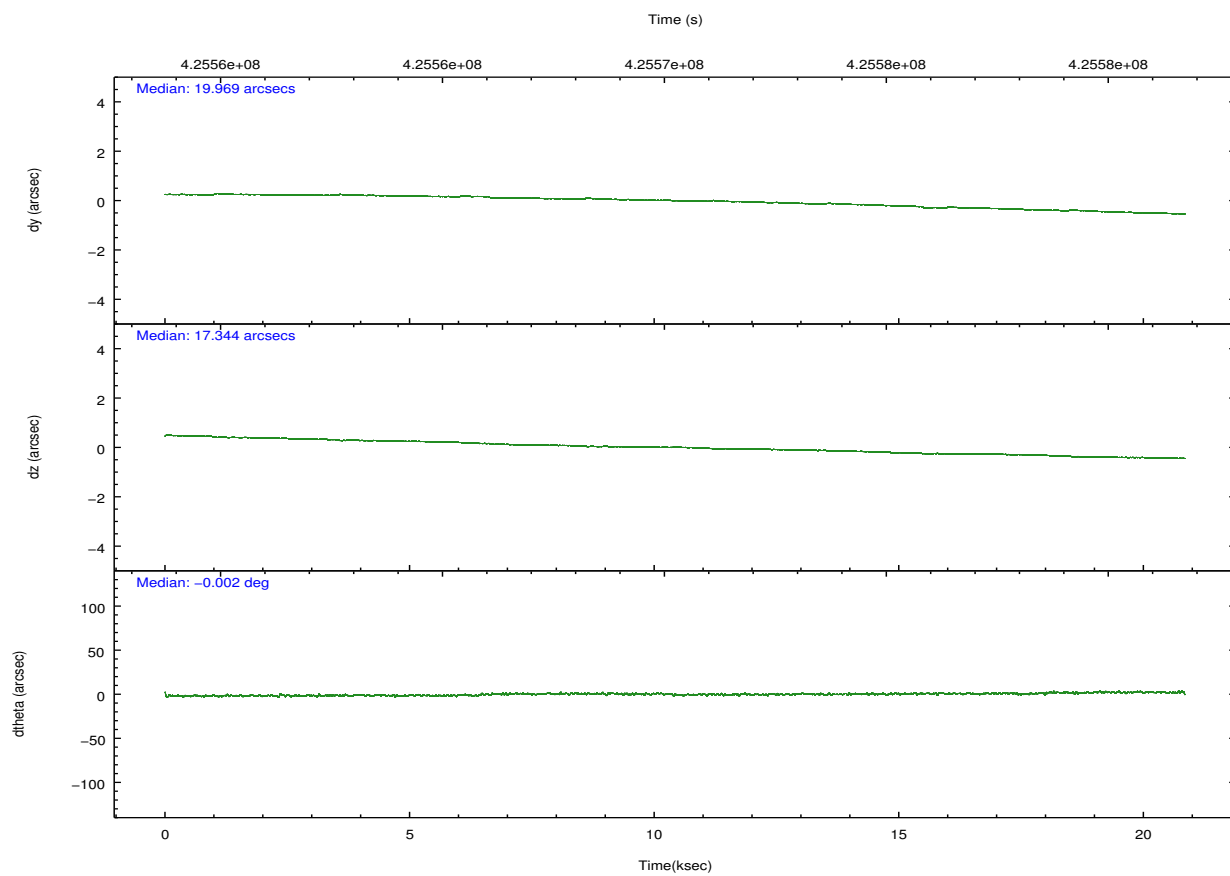
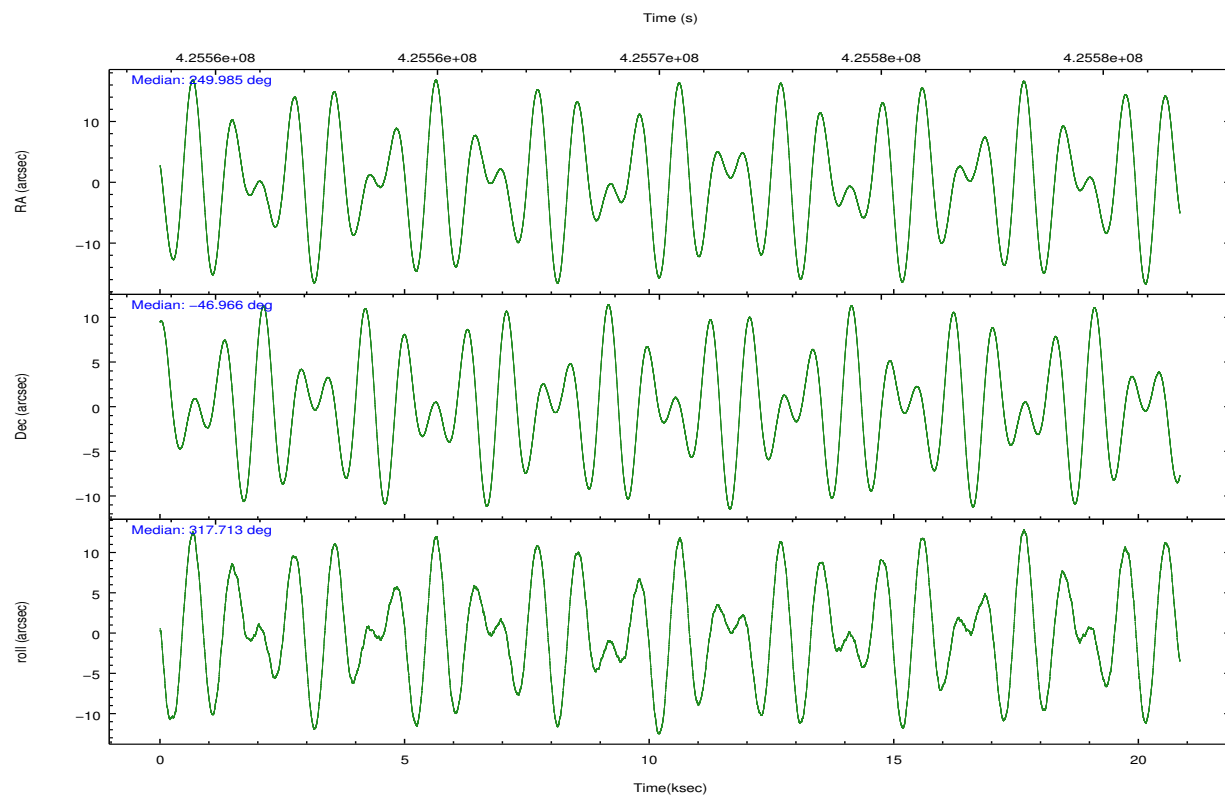
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7		ccd 0	ccd 1	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	106086	110839	118862	119504	124707	156398	grade 0 events	5229	6239	5617	5938	5793	6503
rejected events	91905	94697	104557	104616	109210	86328		4%	5%	4%	4%	4%	4%
rejected %	86%	85%	87%	87%	87%	55%	grade 1 events	63	59	70	69	66	199
								0%	0%	0%	0%	0%	0%
							grade 2 events	3328	3672	3234	3183	3330	14249
								3%	3%	2%	2%	2%	9%
							grade 3 events	1408	1504	1501	1516	1498	6263
								1%	1%	1%	1%	1%	4%
							grade 4 events	1406	1531	1386	1420	1527	6192
								1%	1%	1%	1%	1%	3%
							grade 5 events	5145	5600	4873	5904	6125	16287
								4%	5%	4%	4%	4%	10%
							grade 6 events	2815	3204	2572	2837	3354	36886
								2%	2%	2%	2%	2%	23%
							grade 7 events	86692	89030	99609	98637	103014	69819
								81%	80%	83%	82%	82%	44%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-012367	ACIS-012367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	249.945539	249.9849468986168	CCD I2 on	Y	Y
[deg] Pointing Dec	-46.960165	-46.96590431639088	CCD I3 on	Y	Y
[deg] Pointing Roll	317.479046	317.7165390281852	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O2	Y
[mm] SIM translation stage pos	-233.592463	-233.5874344608287	CCD S3 on	O1	Y
[mm] SIM translation stage offset	0	-0.005018542100998502	CCD S4 on	N	N
[s] Observation start time (MET)	425559997.184000	425559621.29253	CCD S5 on	N	N
Observation start date	2011-06-27T11:05:31	2011-06-27T11:00:21	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	425580658.184000	425581534.76867	On-chip summing requested	N	N
Observation end date	2011-06-27T16:49:52	2011-06-27T17:05:34	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



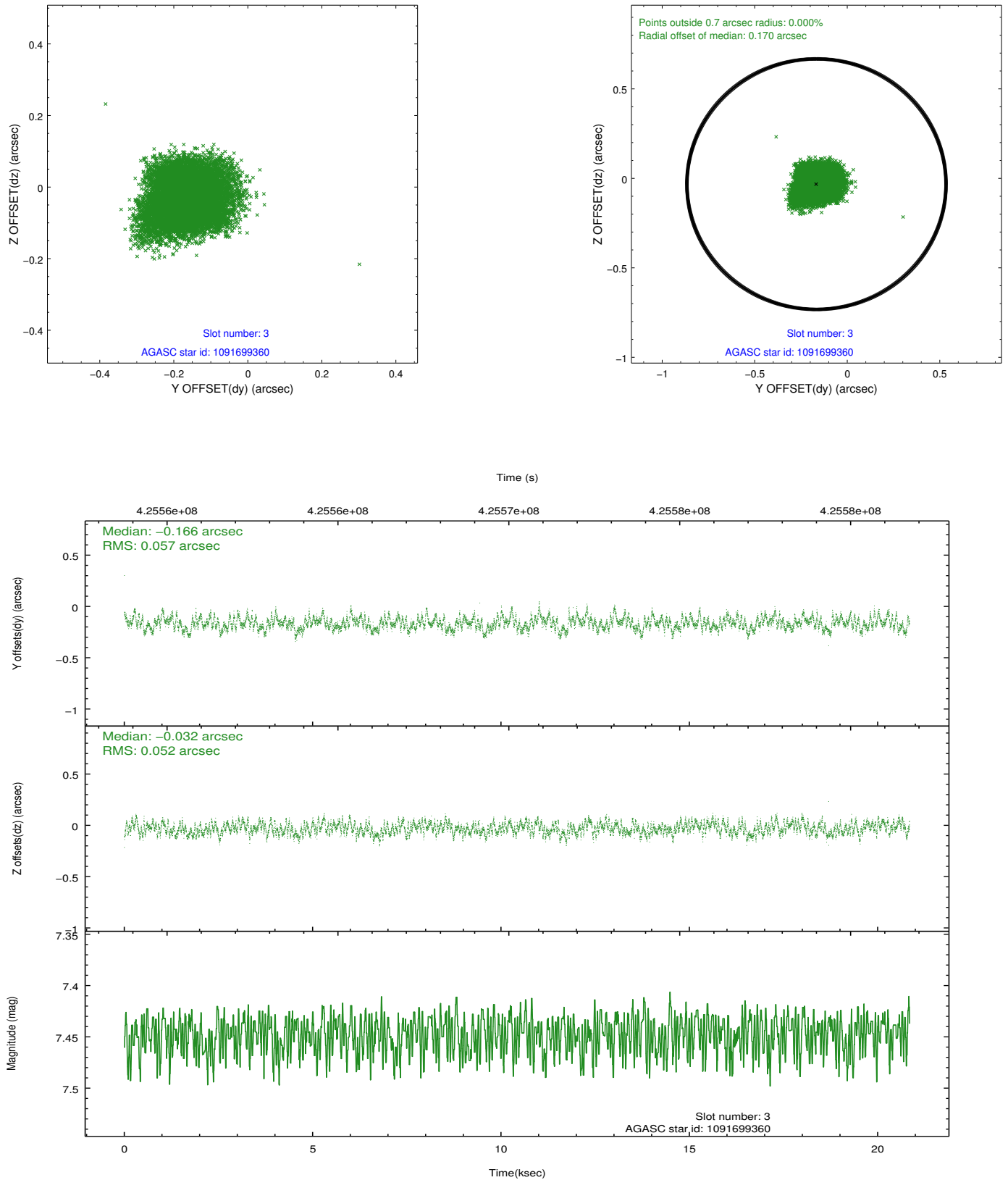


### Slot Statistics

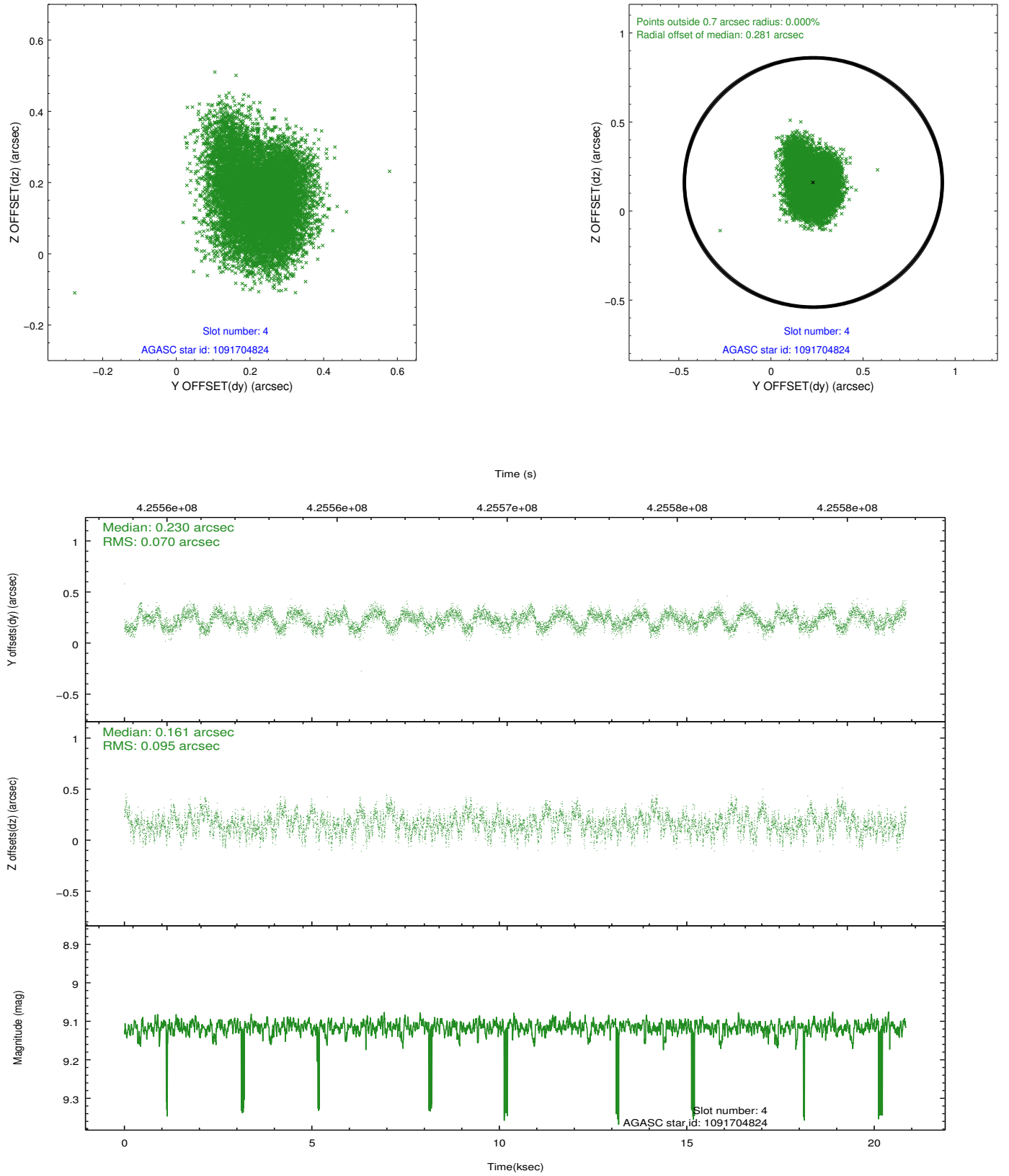
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.09	5085	-0.014	0.057	0.015	0.025	0.000000	0.000000	919.39	-840.94
1	FID	ACIS-I-2	6.99	5084	-0.095	-0.071	0.013	0.025	0.000000	0.000000	-774.68	-847.60
2	FID	ACIS-I-6	7.10	5084	0.019	0.078	0.013	0.020	0.000000	0.000000	384.97	1700.81
3	GUIDE	1091699360	7.45	10170	-0.166	-0.032	0.083	0.133	248.660725	-47.004364	-2199.24	-2268.13
4	GUIDE	1091704824	9.12	10133	0.230	0.161	0.127	0.201	249.173141	-47.336759	-465.65	-2279.60
5	GUIDE	1091705016	7.85	10169	-0.205	0.047	0.061	0.100	249.888030	-47.558250	1352.65	-1681.35
6	GUIDE	1091709408	9.22	10159	0.245	0.026	0.108	0.182	249.304466	-47.312562	-290.50	-1997.28
7	GUIDE	1091842752	7.50	10161	-0.102	-0.206	0.078	0.131	250.934866	-47.105704	2151.46	1240.82

## 2.4 Star Slots

### 2.4.1 Slot 3

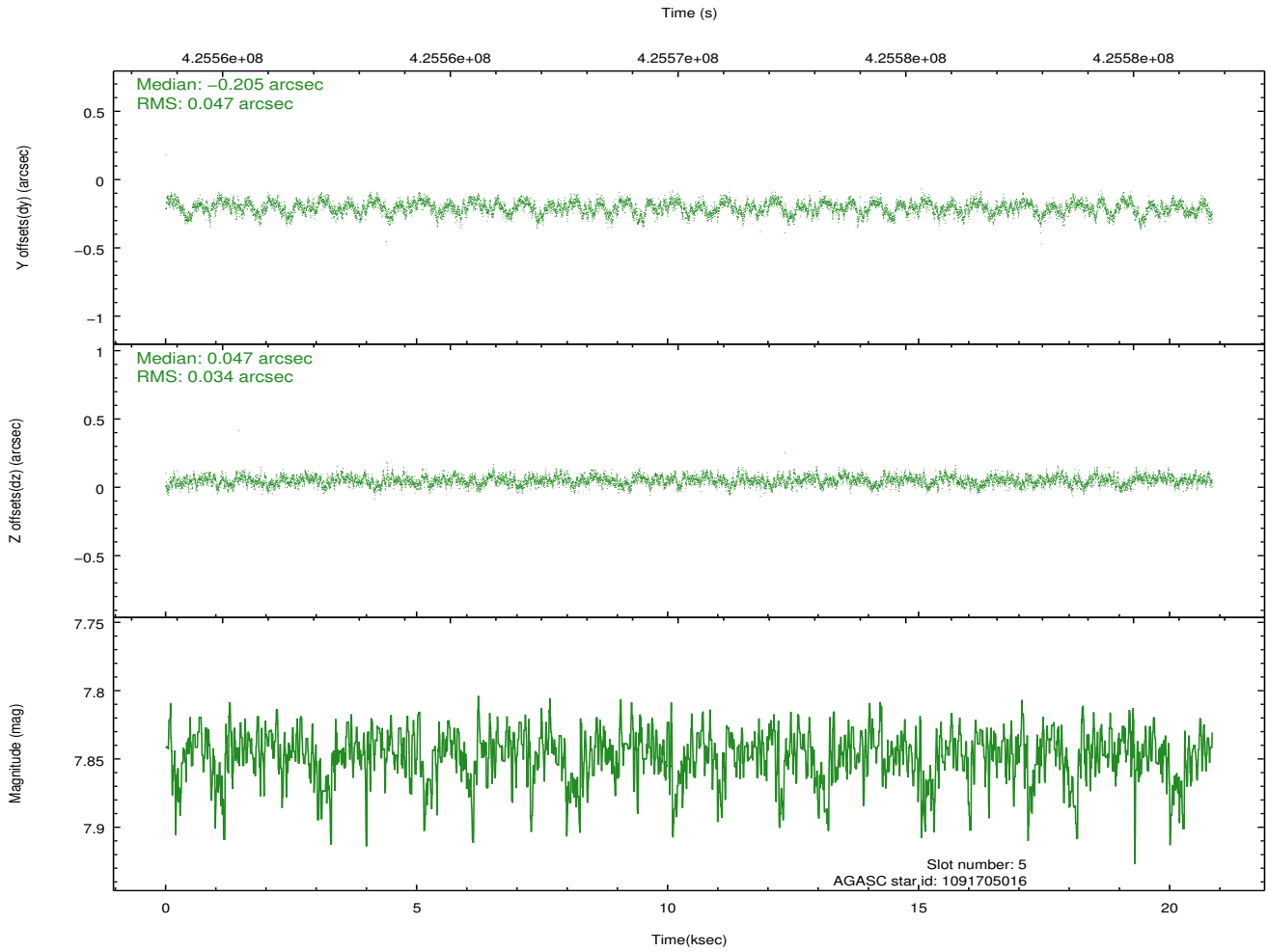
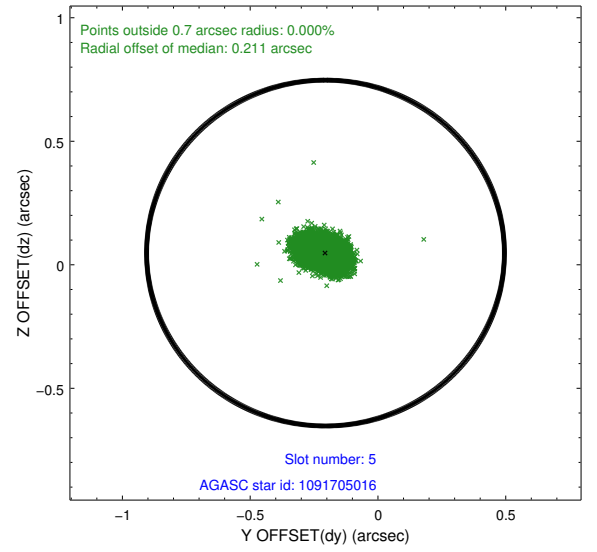
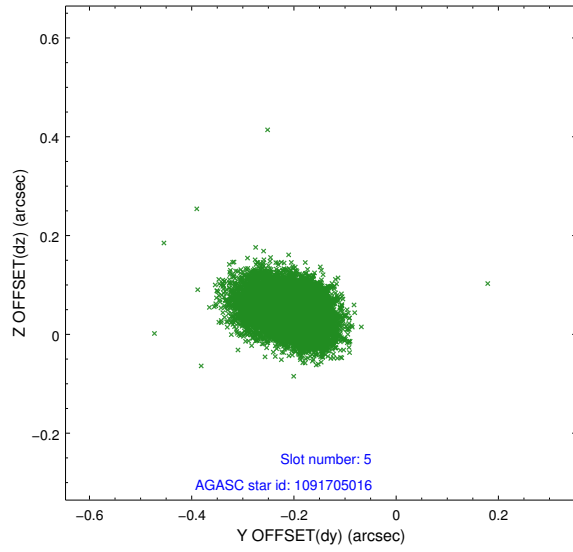


## 2.4.2 Slot 4

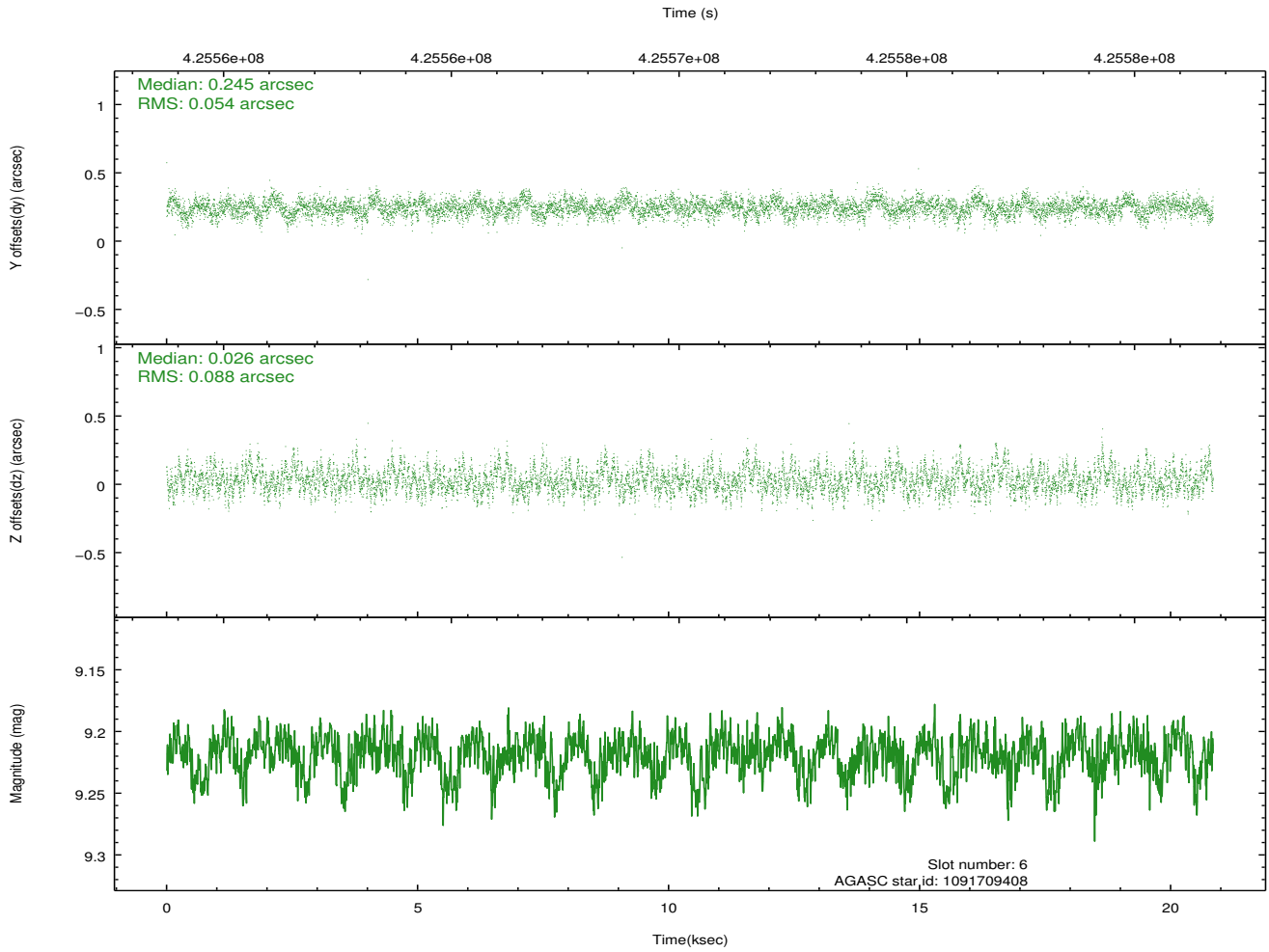
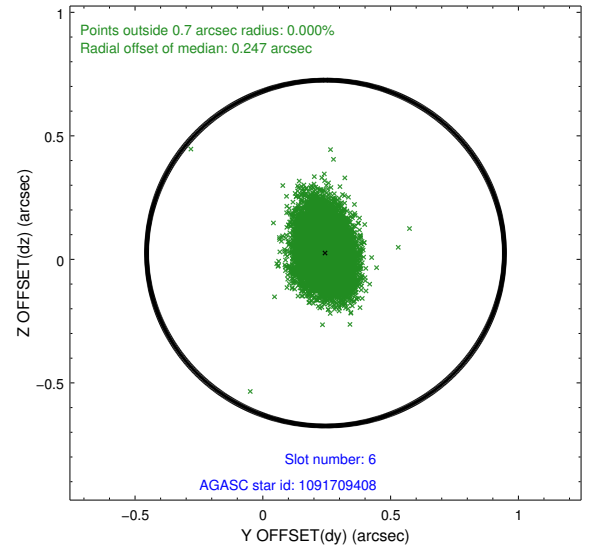
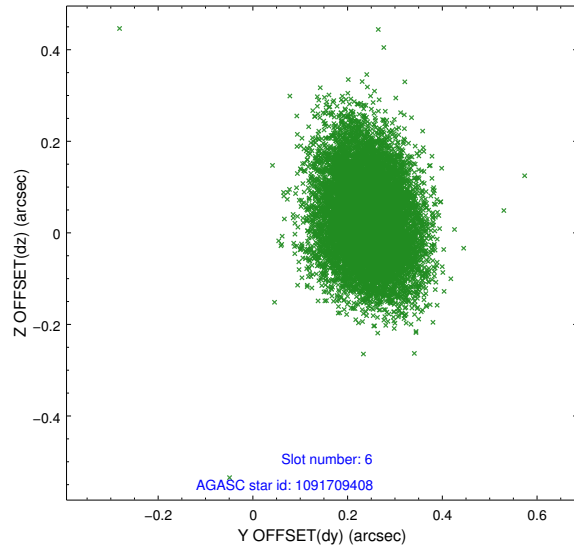




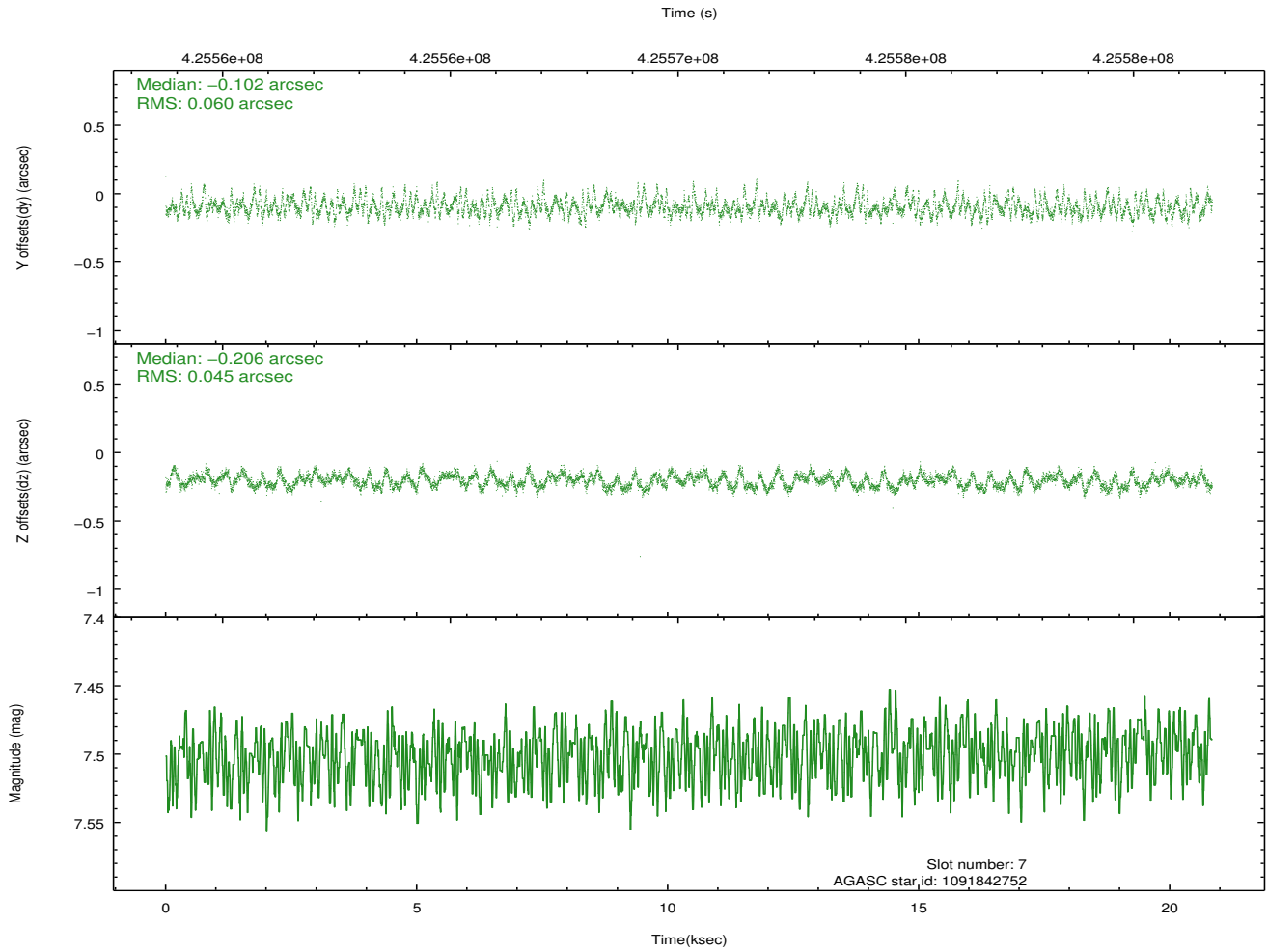
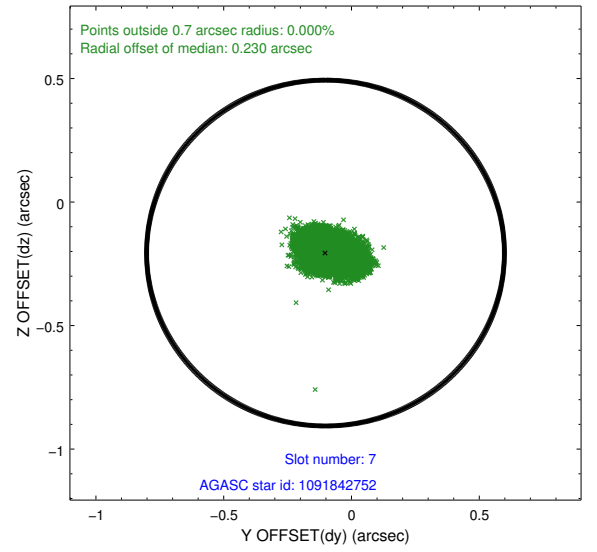
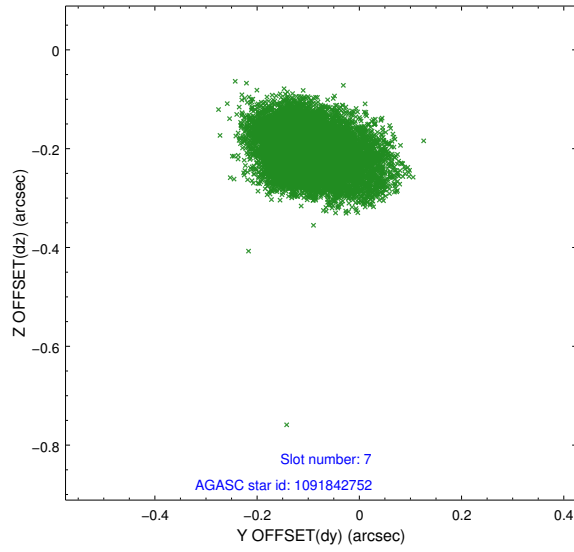
### 2.4.3 Slot 5



## 2.4.4 Slot 6

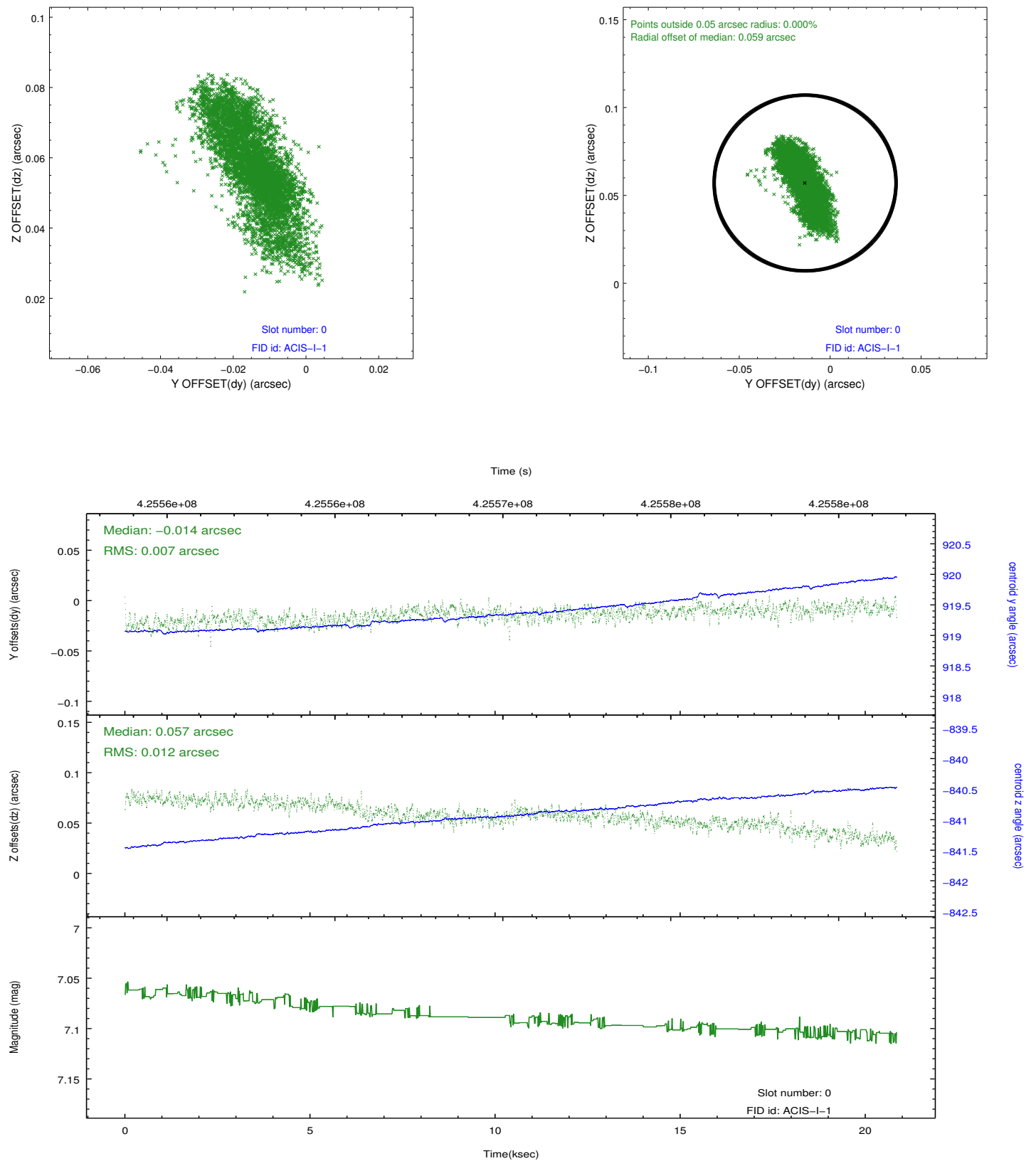


## 2.4.5 Slot 7

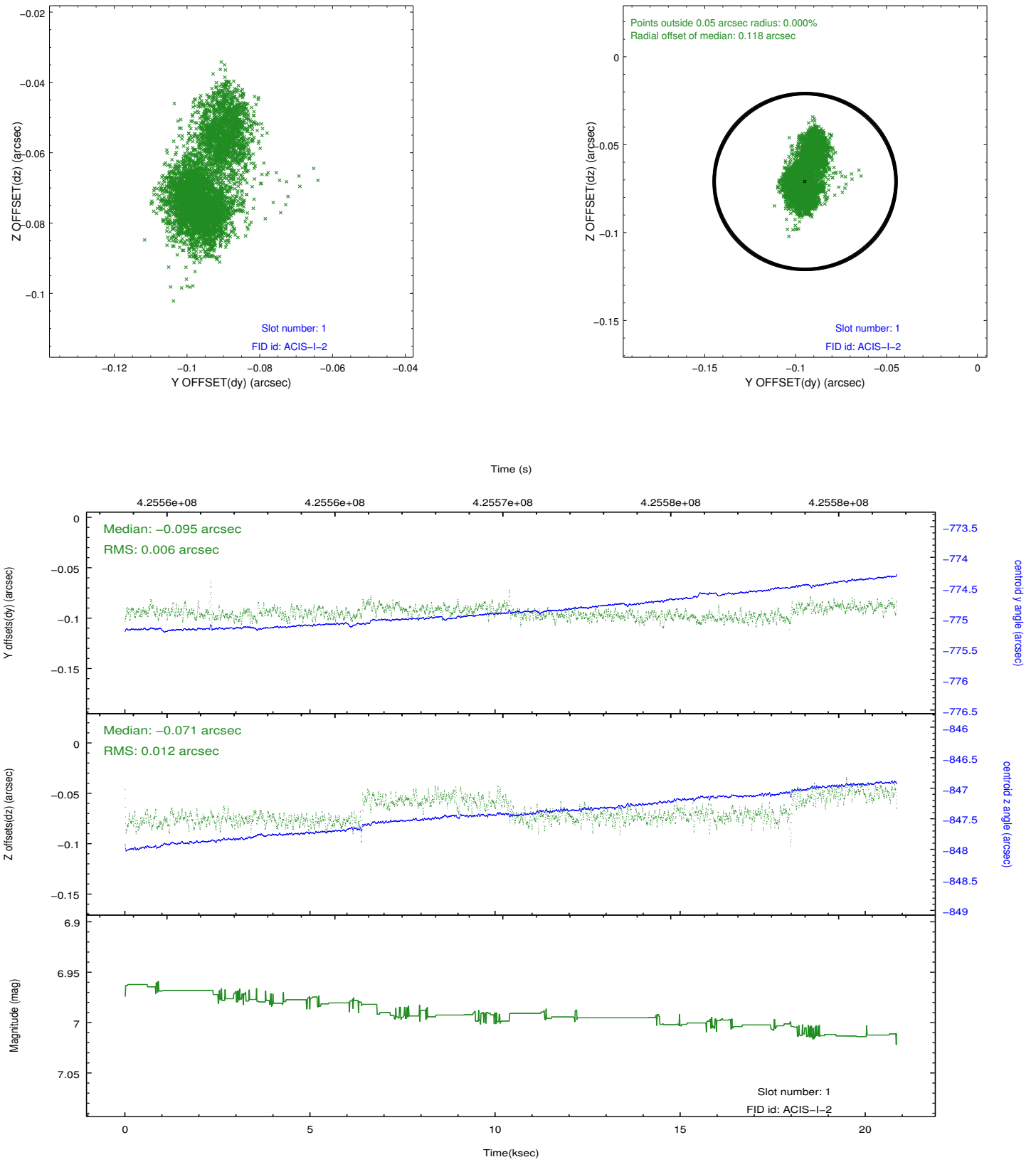


## 2.5 FID Slots

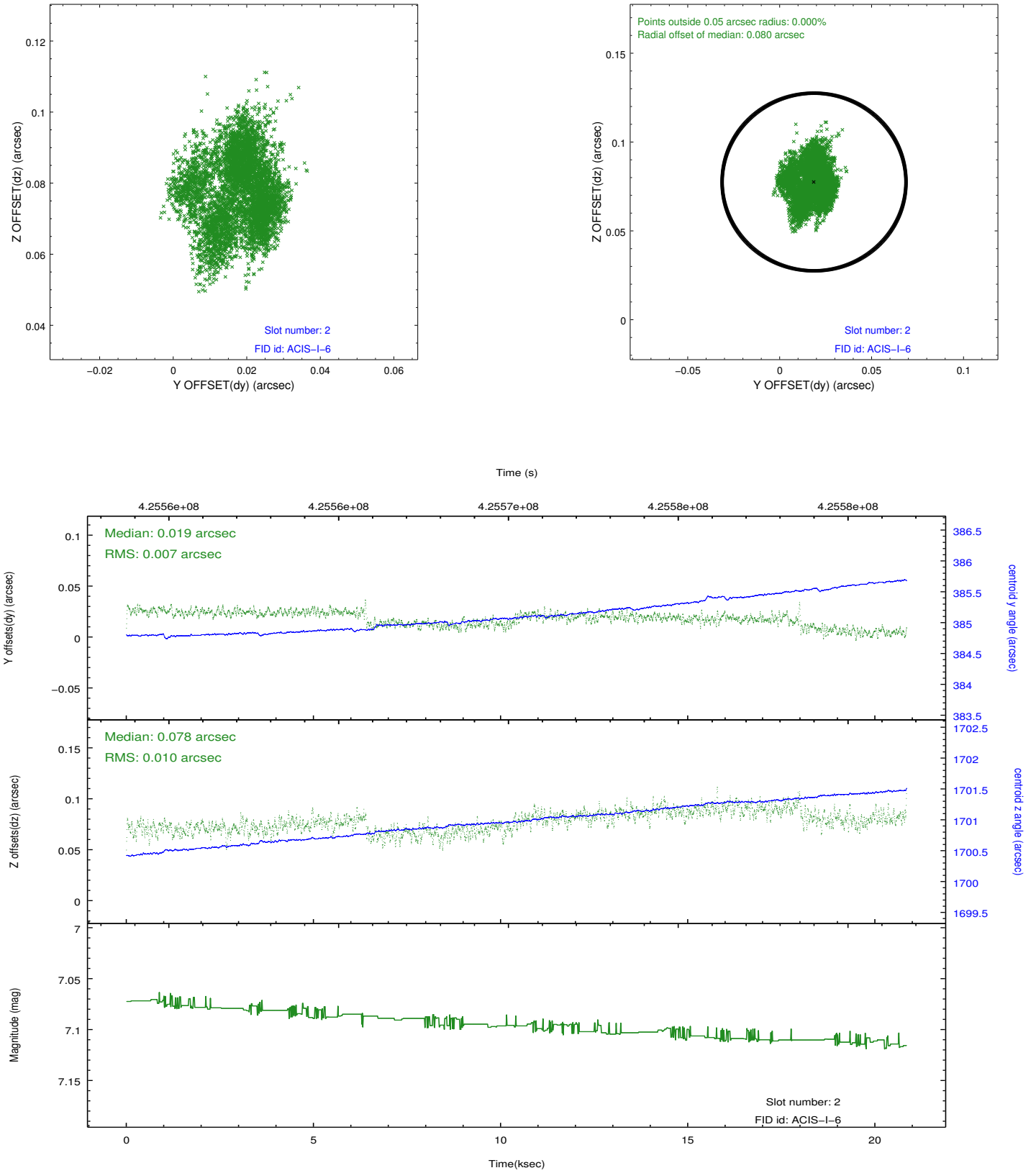
### 2.5.1 Slot 0



## 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)	2012.02.14
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	20.415999924004

### A.2 Comments

Joint Proposal: NOAO