

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 12320 - L2 Version 2  
Chandra X-Ray Center

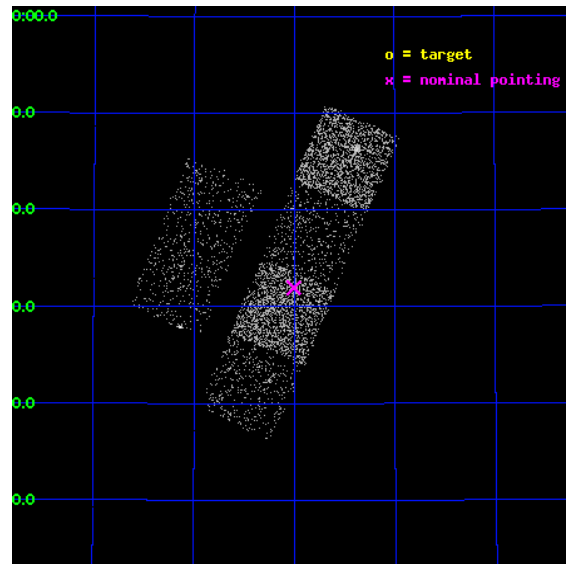
L2 Processing Date : Jul 5 2012

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# 1 Front

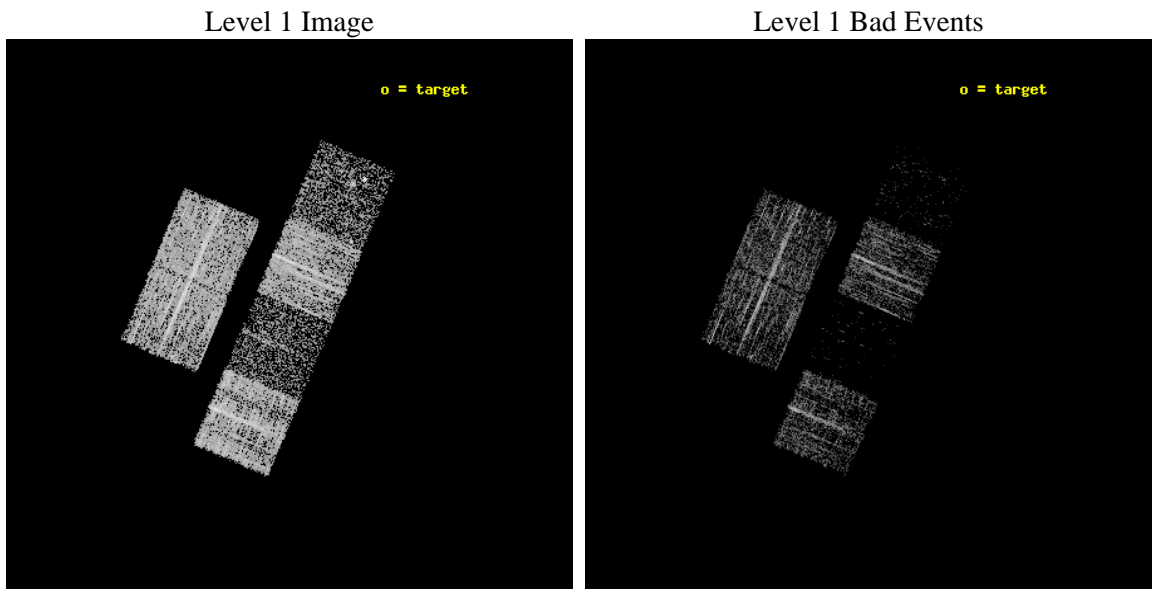
seq_num	100077	Sequence number
obs_id	12320	Observation id
title	Comet 103P/Hartley 2 During the EPOXI Spacecraft Encounter	Proposa
observer	Dr. Carey Lisse	Principal investigator
object	103P/Hartley 2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	81.25	Observer's specified target RA [deg]
dec_targ	39.0	Observer's specified target Dec [deg]
ra_nom	74.001554770106	Nominal RA [deg]
dec_nom	45.532631724889	Nominal Dec [deg]
roll_nom	112.90214261368	Nominal Roll [deg]
revision	2	Processing version of data
ontime	2959.1452528238	Sum of GTIs [s]
livetime	2921.6747738492	Livetime [s]
ontime2	2959.1862928271	Sum of GTIs [s]
ontime3	2959.0221328139	Sum of GTIs [s]
ontime5	2959.1042128205	Sum of GTIs [s]
ontime6	2959.0631728172	Sum of GTIs [s]
ontime7	2959.1452528238	Sum of GTIs [s]
ontime8	2958.9810928106	Sum of GTIs [s]
l2events	5763	Number of level 2 events



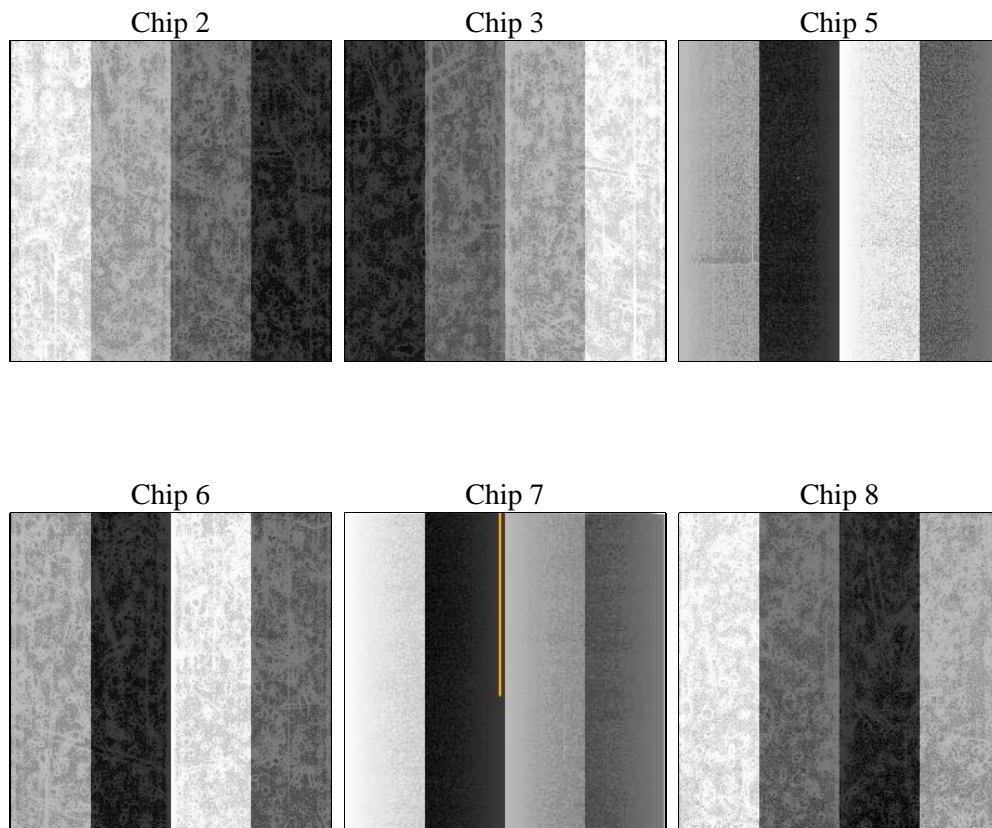
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	3000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	2959.1452528238	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime2	2959.1862928271	Sum of GTIs [s]
date	2012-07-05T05:25:24	Date and time of file creation	ontime3	2959.0221328139	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	2959.1042128205	Sum of GTIs [s]
			ontime6	2959.0631728172	Sum of GTIs [s]
			ontime7	2959.1452528238	Sum of GTIs [s]
			ontime8	2958.9810928106	Sum of GTIs [s]
			l1events	64975	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	14854	14164	3740	13587	2813	15817
rejected events	14142	13640	1146	12922	599	11071
rejected %	95%	96%	30%	95%	21%	69%

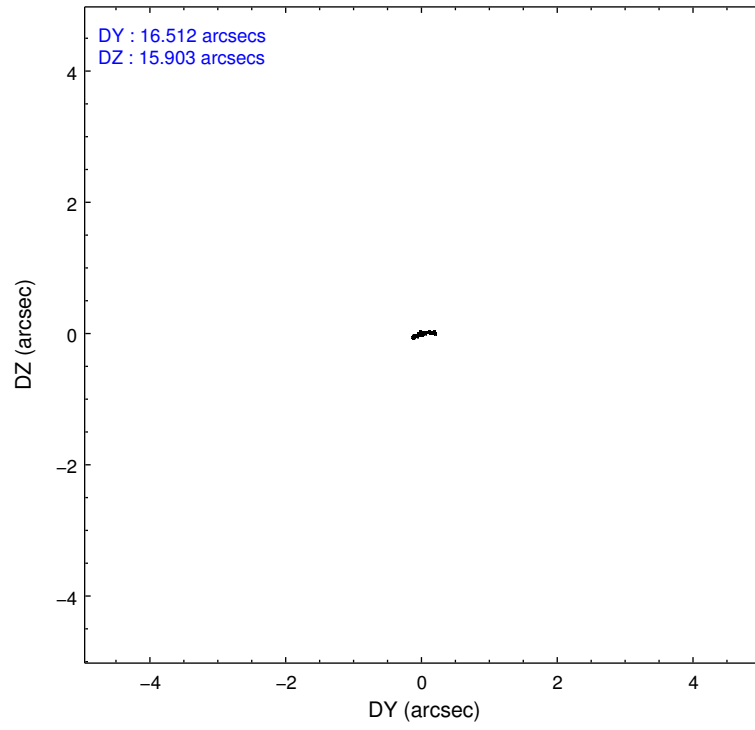
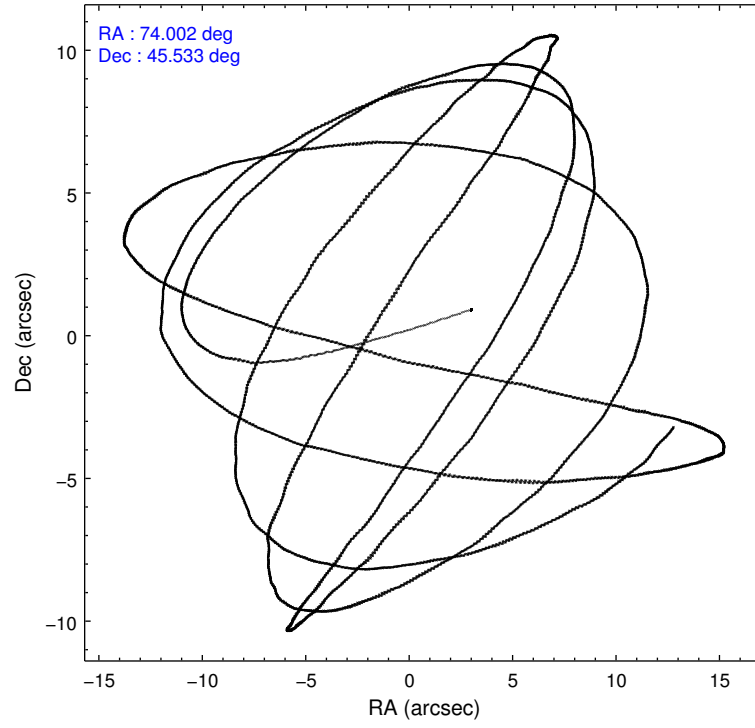
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	258	248	897	337	779	1419
	1%	1%	23%	2%	27%	8%
grade 1 events	5	2	48	6	22	17
	0%	0%	1%	0%	0%	0%
grade 2 events	177	76	967	126	655	1137
	1%	0%	25%	0%	23%	7%
grade 3 events	92	67	234	79	252	519
	0%	0%	6%	0%	8%	3%
grade 4 events	91	82	225	83	272	511
	0%	0%	6%	0%	9%	3%
grade 5 events	20	11	223	16	82	91
	0%	0%	5%	0%	2%	0%
grade 6 events	94	52	275	41	260	1162
	0%	0%	7%	0%	9%	7%
grade 7 events	14117	13626	871	12899	491	10961
	95%	96%	23%	94%	17%	69%

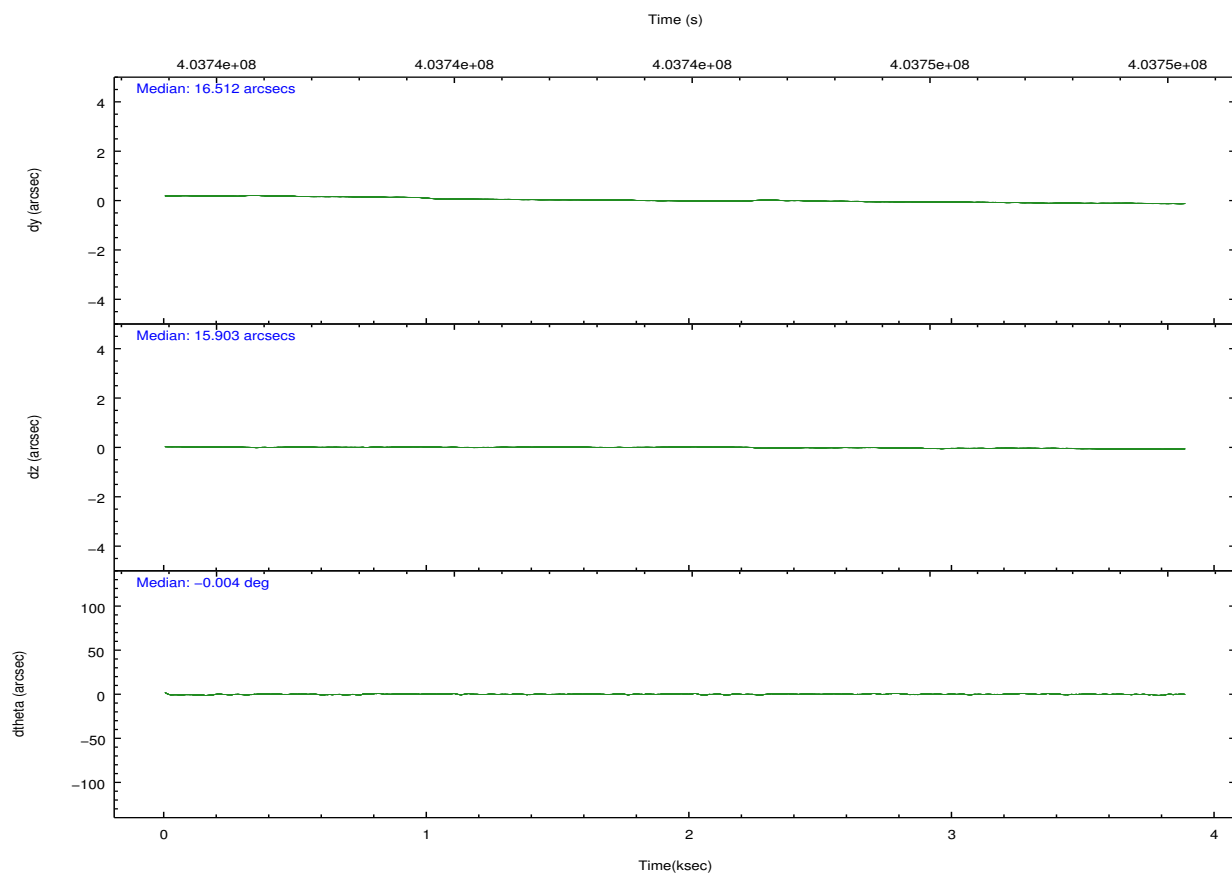
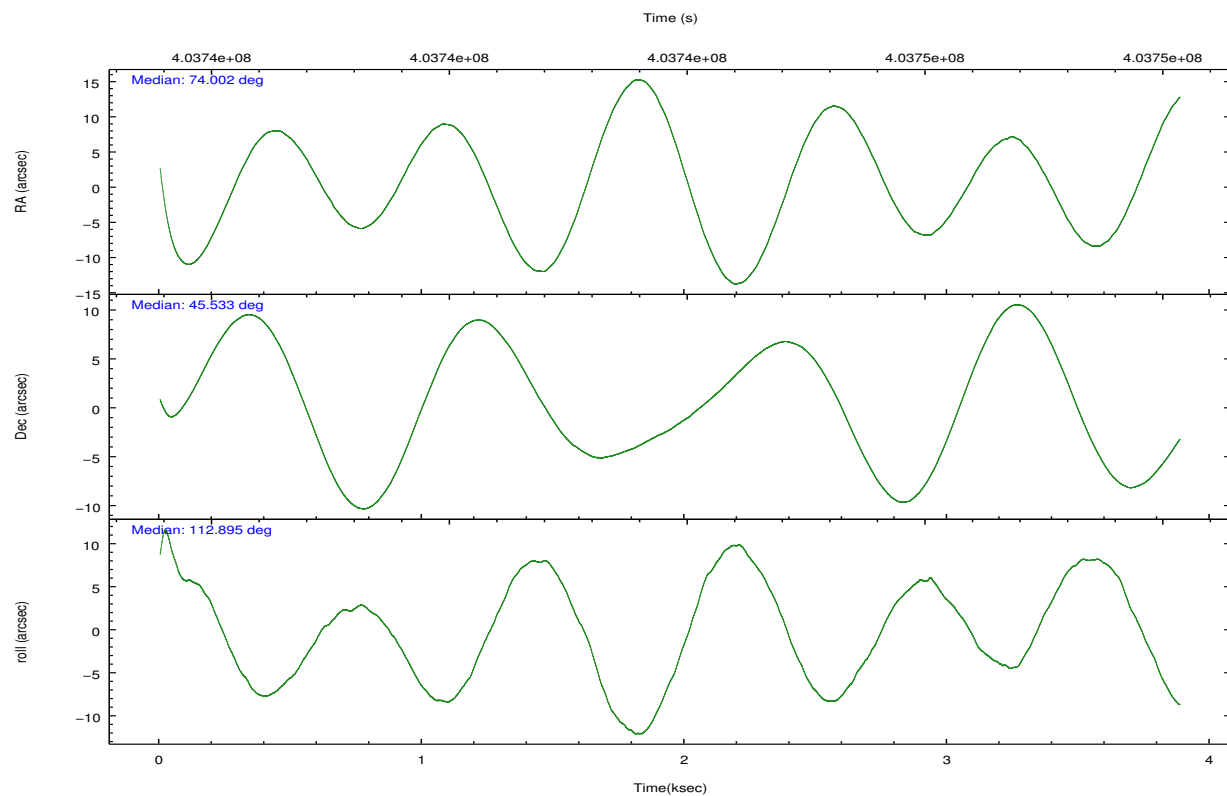


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-235678	ACIS-235678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	74.033113	74.00155477010628	Subarray requested	NONE	NONE
[deg] Pointing Dec	45.516432	45.53263172488916	Alternating exposures requested	N	N
[deg] Pointing Roll	112.722946	112.9021426136771	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	403696866.184000	403696866.184000			
[s] Window stop time (MET)	404042466.184000	404042466.184000			
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1400660498719			
[mm] SIM translation stage offset	0	0.00754346686406393			
[s] Observation start time (MET)	403743866.184000	403742195.86335			
Observation start date	2010-10-17T23:03:20	2010-10-17T22:36:35			
[s] Observation end time (MET)	403746866.184000	403747000.0386			
Observation end date	2010-10-17T23:53:20	2010-10-17T23:56:40			
Read mode	TIMED	TIMED			

## 2.3 Aspect



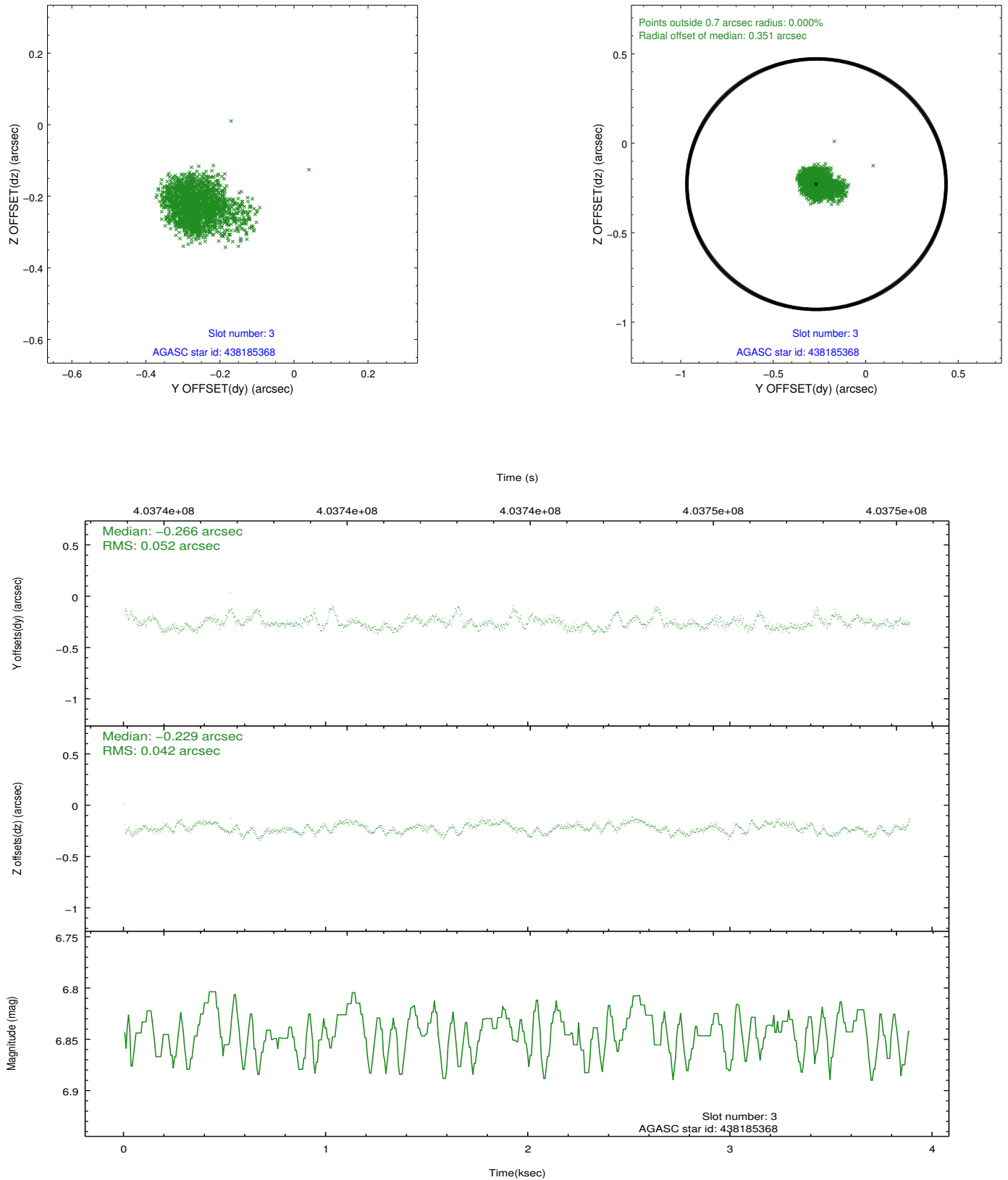


### Slot Statistics

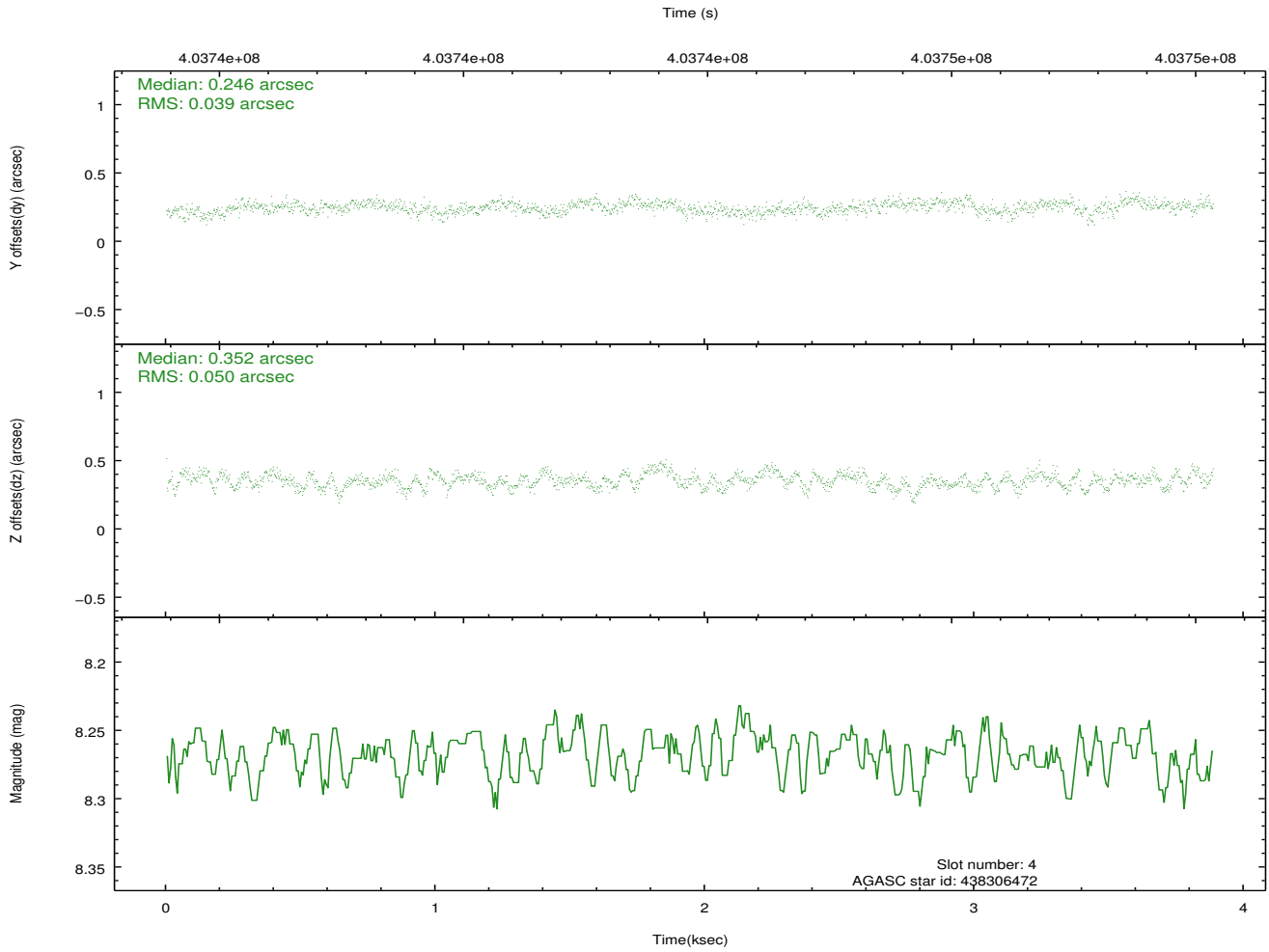
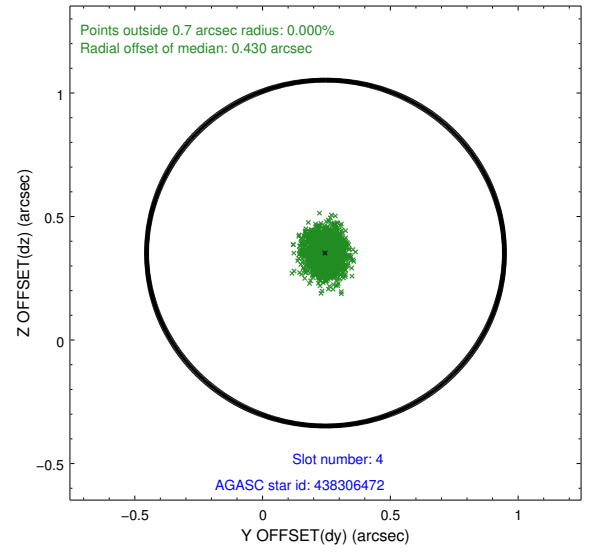
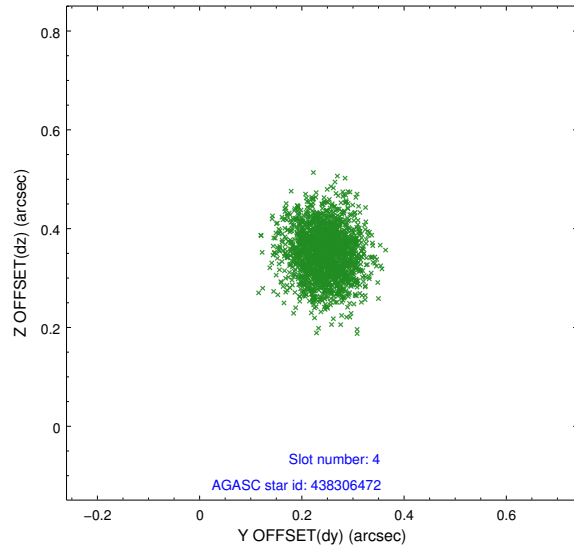
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.94	948	-0.095	-0.006	0.007	0.011	0.000000	0.000000	-769.62	-1737.31
1	FID	ACIS-S-4	7.01	948	0.171	0.047	0.006	0.010	0.000000	0.000000	2143.16	169.58
2	FID	ACIS-S-5	7.05	948	-0.107	-0.033	0.008	0.013	0.000000	0.000000	-1820.43	164.97
3	GUIDE	438185368	6.84	1895	-0.266	-0.229	0.069	0.116	73.089639	45.939908	2330.27	1584.05
4	GUIDE	438306472	8.27	1894	0.246	0.352	0.068	0.108	75.140877	45.253790	-1937.15	-2230.56
5	GUIDE	438315504	8.59	1896	0.187	-0.205	0.072	0.116	73.821517	45.156819	-987.20	993.67
6	GUIDE	438322520	8.18	1896	-0.175	-0.088	0.061	0.102	73.688072	45.706515	967.29	535.46
7	GUIDE	438309984	9.29	1893	0.002	0.167	0.105	0.172	74.725574	46.114243	1325.25	-2427.88

## 2.4 Star Slots

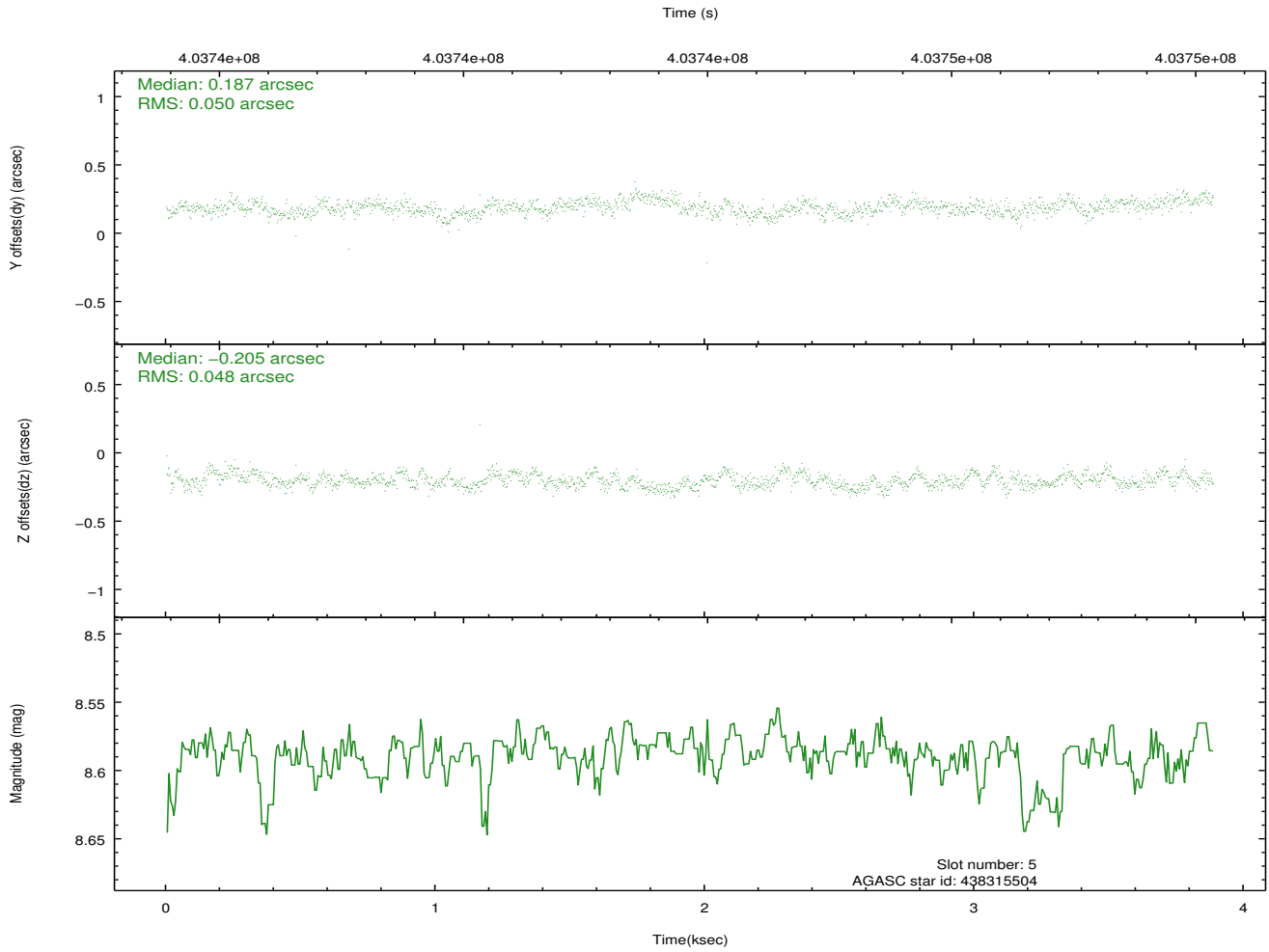
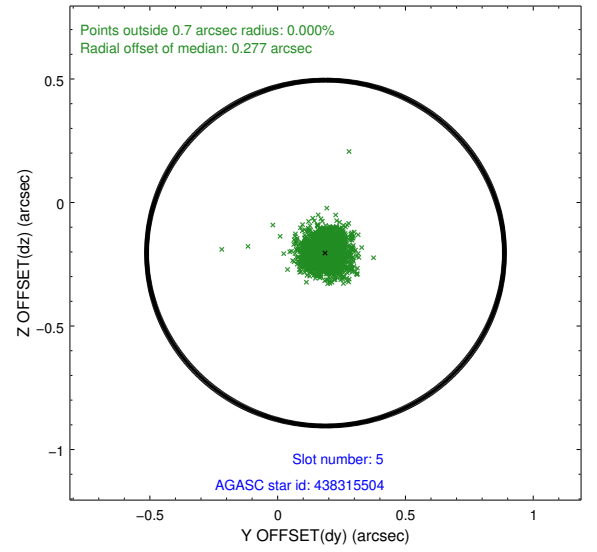
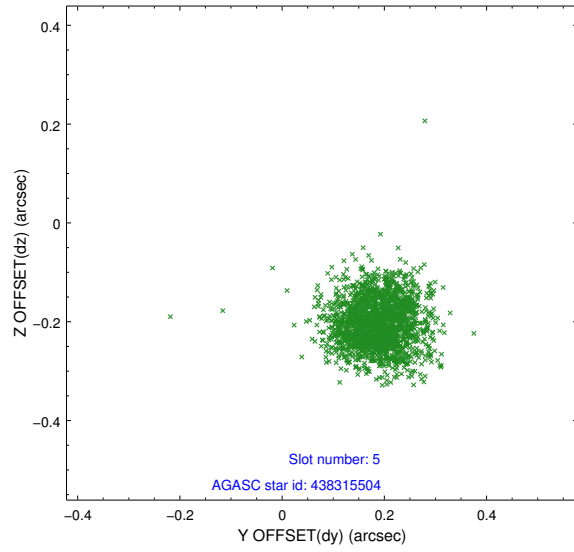
### 2.4.1 Slot 3



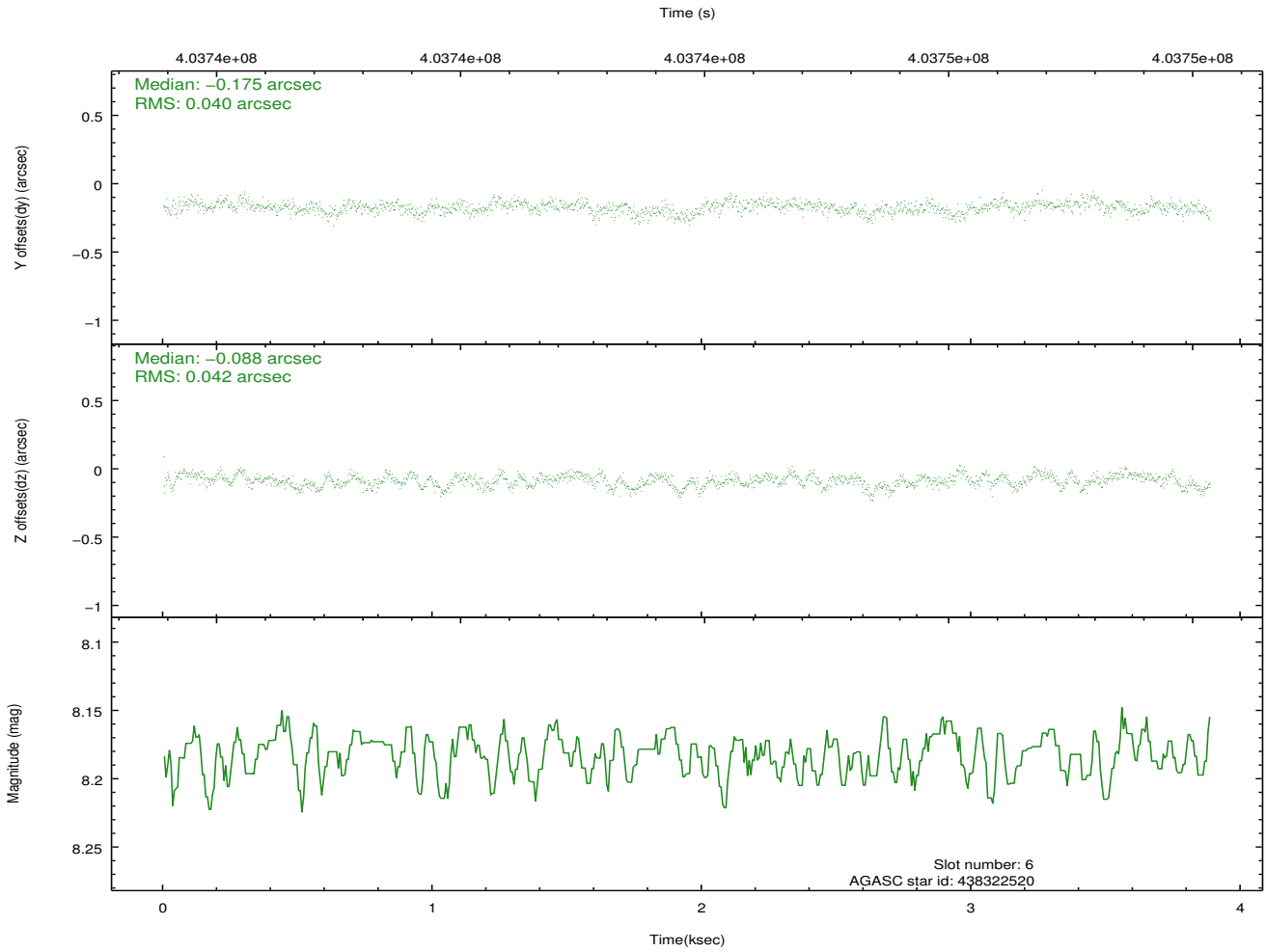
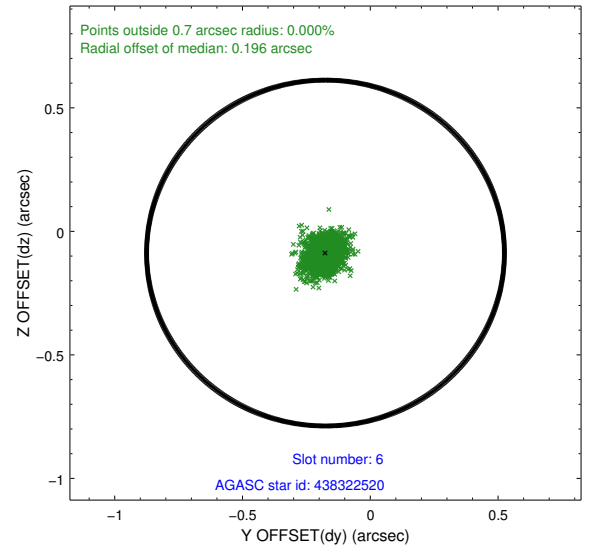
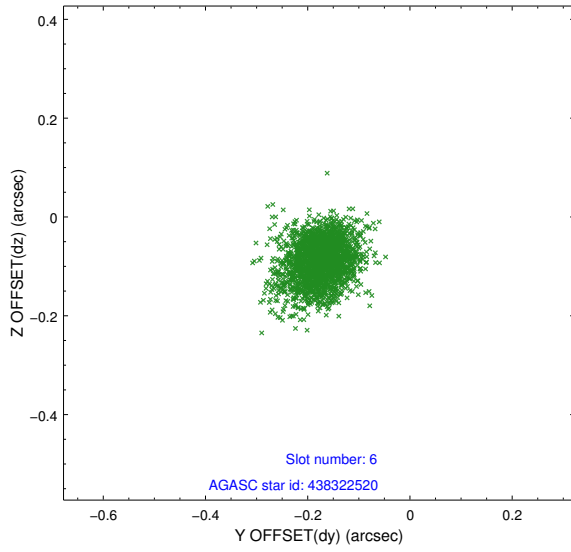
## 2.4.2 Slot 4



### 2.4.3 Slot 5

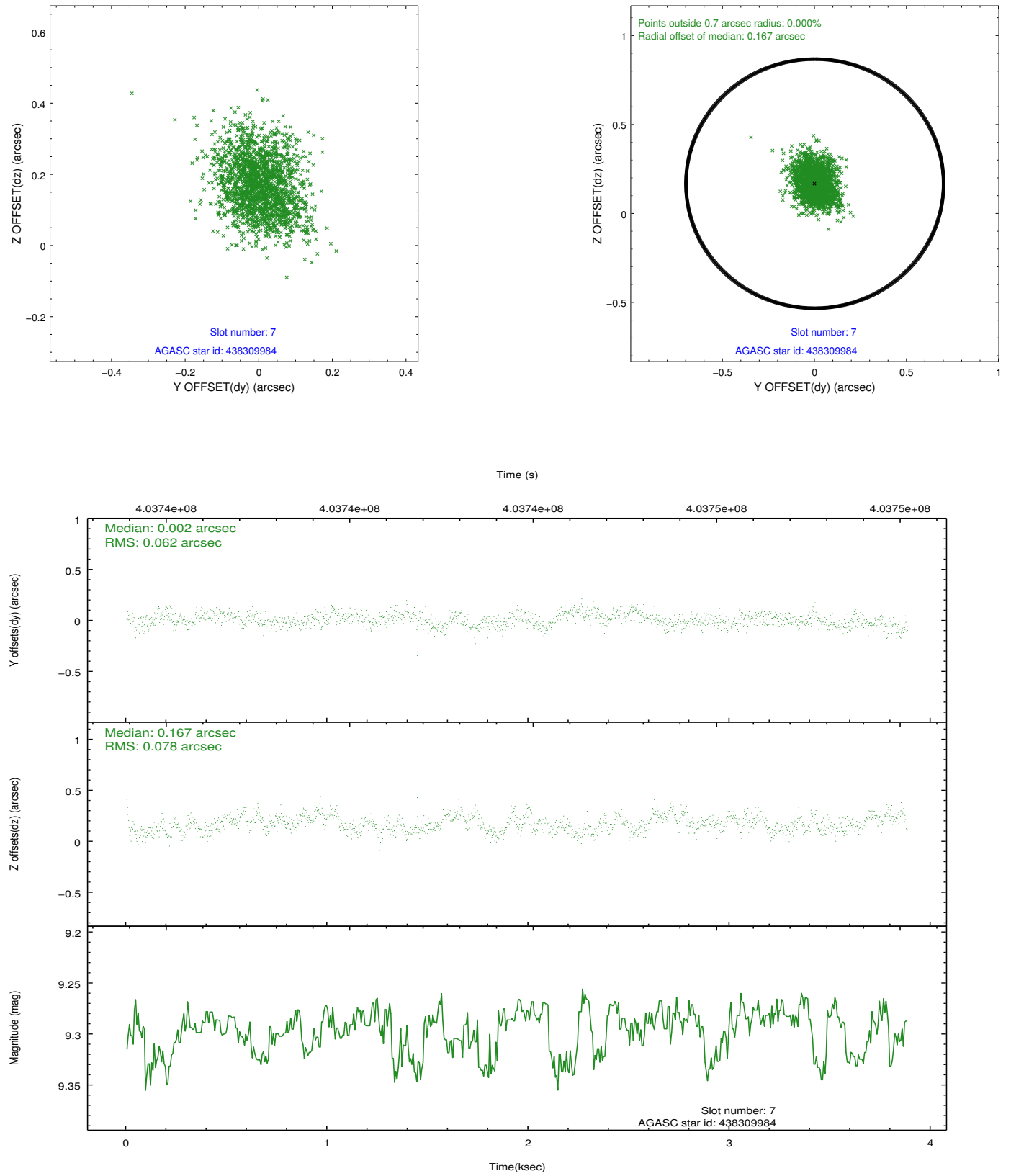


## 2.4.4 Slot 6



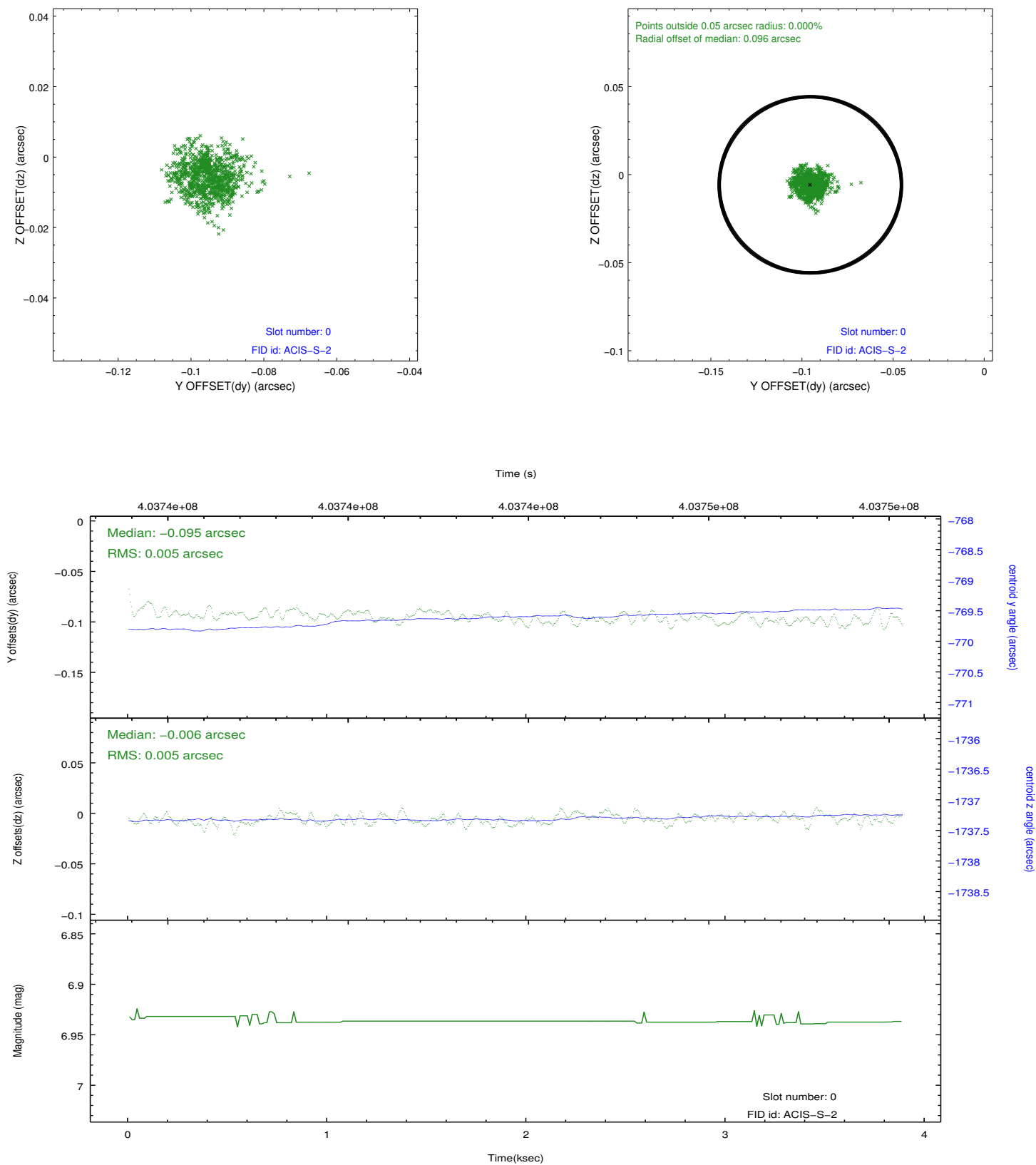


## 2.4.5 Slot 7

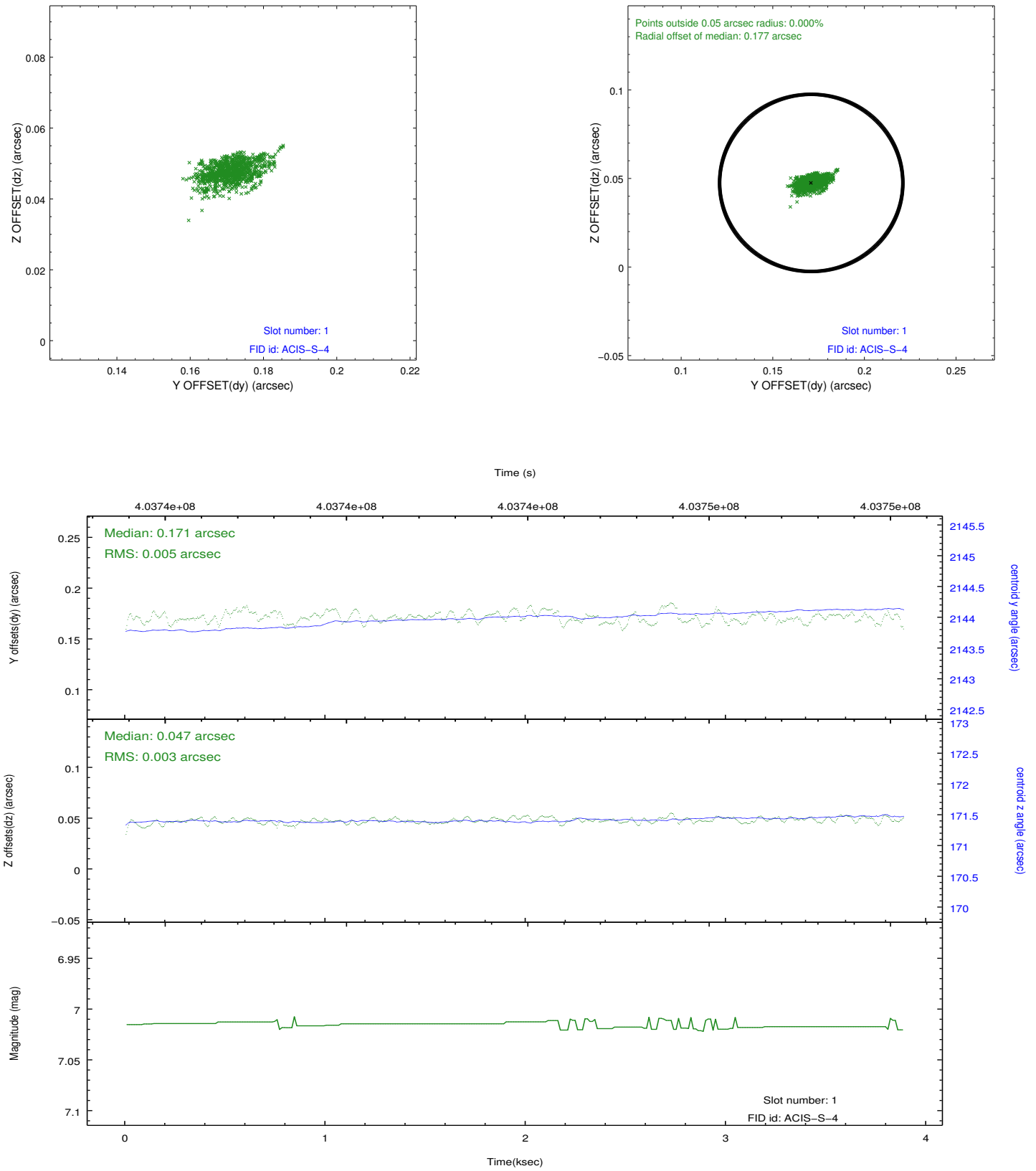


## 2.5 FID Slots

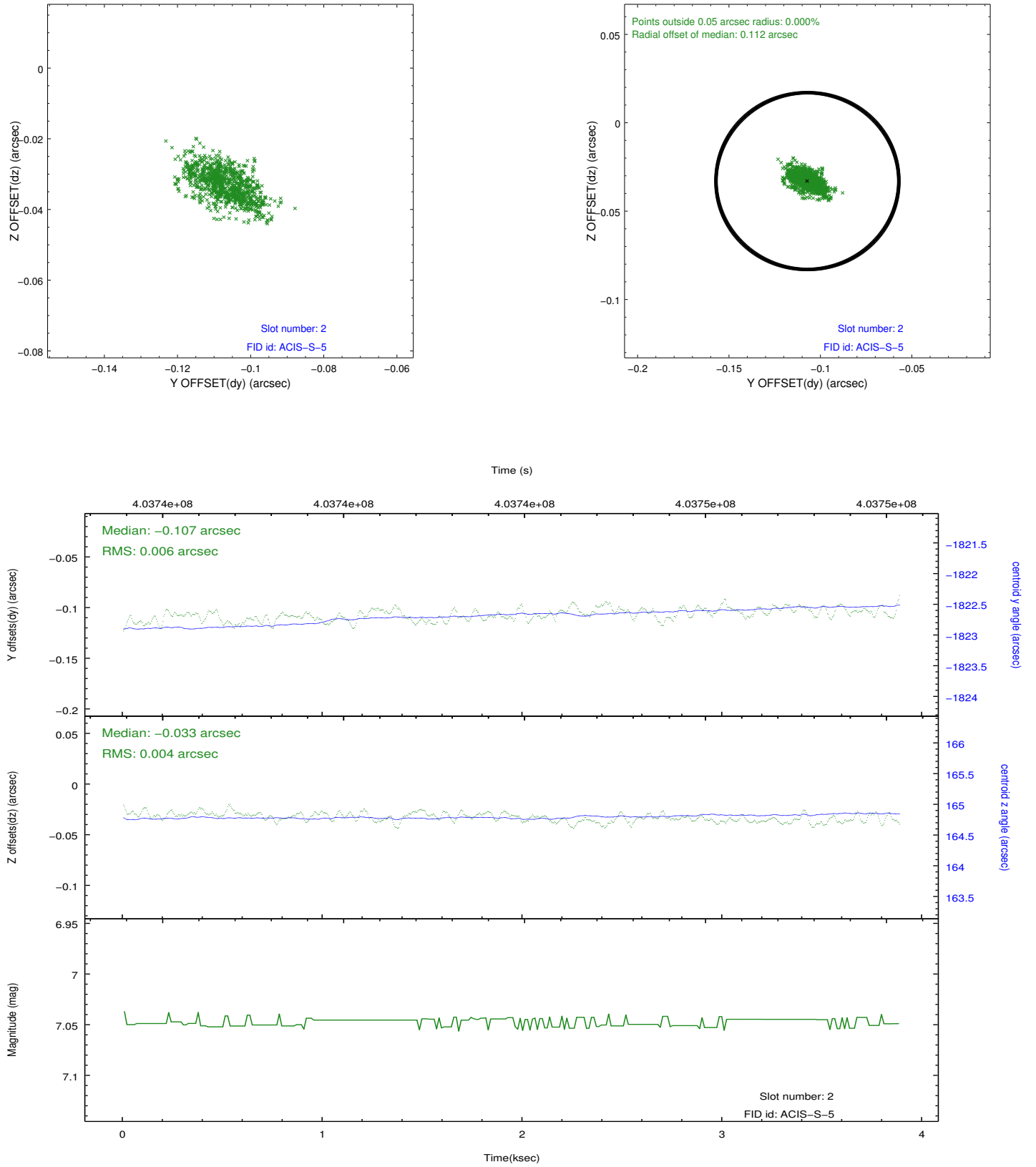
### 2.5.1 Slot 0



## 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)	2012.07.13
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.9591452501416

## A.2 Comments

This is a moving target. Users will need to run `sso_freeze` or similar software to position the events in the reference frame of the comet. Window constraint met.