

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13174 - L2 Version 2  
Chandra X-Ray Center

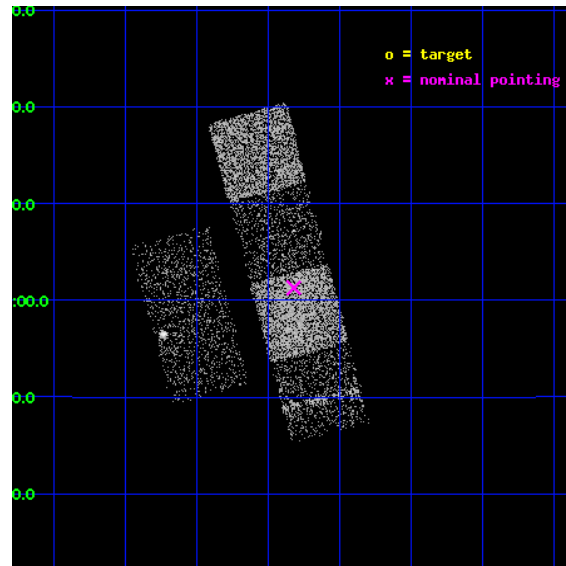
L2 Processing Date : Jul 6 2012

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Aspect . . . . .	6
2.4	Star Slots . . . . .	9
2.4.1	Slot 3 . . . . .	9
2.4.2	Slot 4 . . . . .	10
2.4.3	Slot 5 . . . . .	11
2.4.4	Slot 6 . . . . .	12
2.4.5	Slot 7 . . . . .	13
2.5	FID Slots . . . . .	14
2.5.1	Slot 0 . . . . .	14
2.5.2	Slot 1 . . . . .	15
2.5.3	Slot 2 . . . . .	16
<b>A</b>	<b>Summary</b>	<b>17</b>
A.1	Status . . . . .	17
A.2	Comments . . . . .	17

# 1 Front

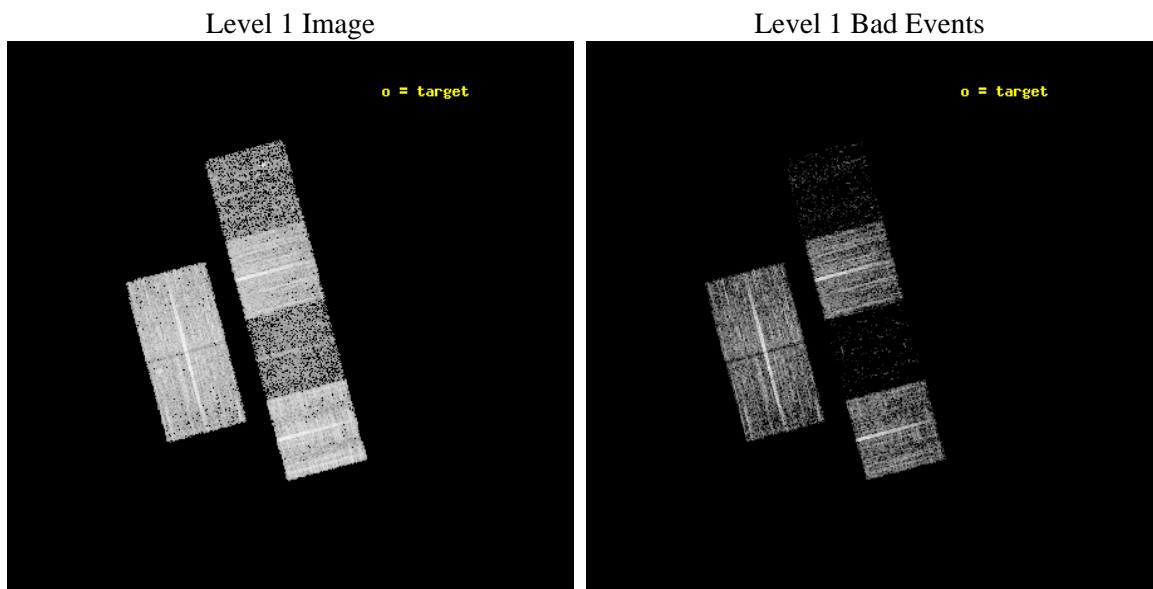
seq_num	100088	Sequence number
obs_id	13174	Observation id
title	Comet 103P/Hartley 2 During the EPOXI Spacecraft Encounter	Proposa
observer	Dr. Carey Lisse	Principal investigator
object	103P/Hartley 2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	106.306208	Observer's specified target RA [deg]
dec_targ	7.21925	Observer's specified target Dec [deg]
ra_nom	107.70496847776	Nominal RA [deg]
dec_nom	5.0214567059571	Nominal Dec [deg]
roll_nom	75.197652976816	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6463.1096699834	Sum of GTIs [s]
livetime	6381.2698837246	Livetime [s]
ontime2	6459.9096996188	Sum of GTIs [s]
ontime3	6462.9865499735	Sum of GTIs [s]
ontime5	6463.0686299801	Sum of GTIs [s]
ontime6	6463.0275899768	Sum of GTIs [s]
ontime7	6463.1096699834	Sum of GTIs [s]
ontime8	6462.9455099702	Sum of GTIs [s]
l2events	13093	Number of level 2 events



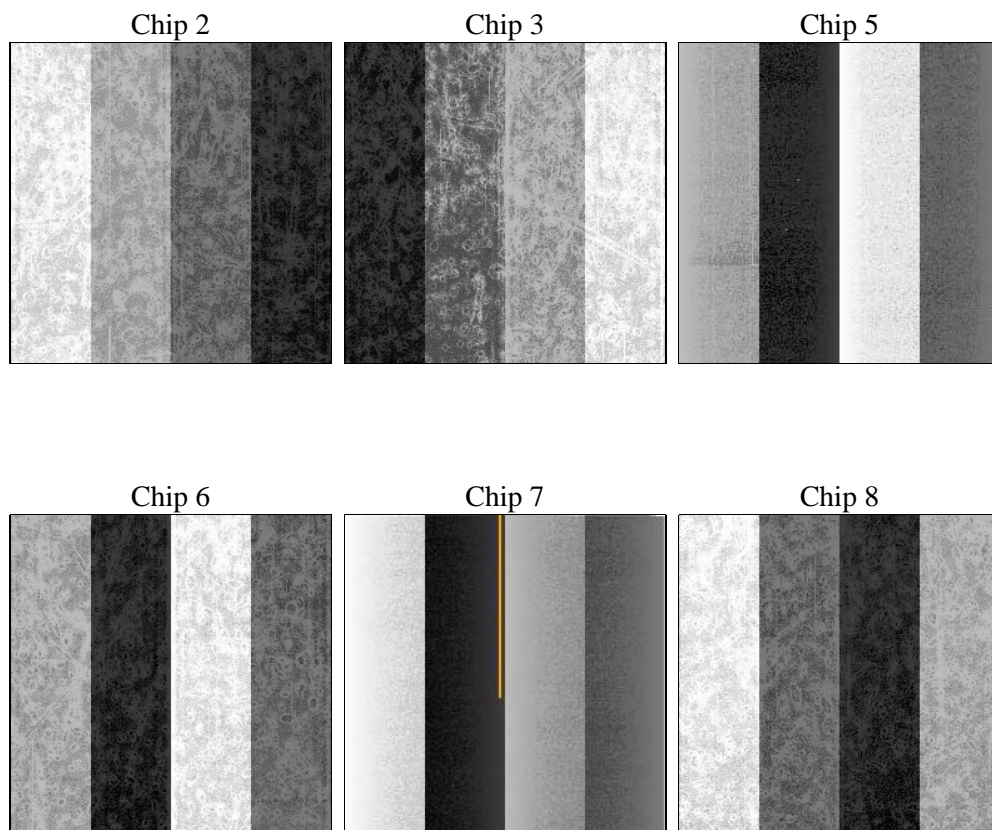
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	6500.000000	[s] Scheduled observation exposure time
ascdsver	8.4.5	Processing system revision	ontime	6463.1096699834	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime2	6459.9096996188	Sum of GTIs [s]
date	2012-07-06T12:29:34	Date and time of file creation	ontime3	6462.9865499735	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	6463.0686299801	Sum of GTIs [s]
			ontime6	6463.0275899768	Sum of GTIs [s]
			ontime7	6463.1096699834	Sum of GTIs [s]
			ontime8	6462.9455099702	Sum of GTIs [s]
			l1events	140943	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	31926	27676	7015	29919	6684	37723
rejected events	30543	26514	2509	28398	1330	26540
rejected %	95%	95%	35%	94%	19%	70%

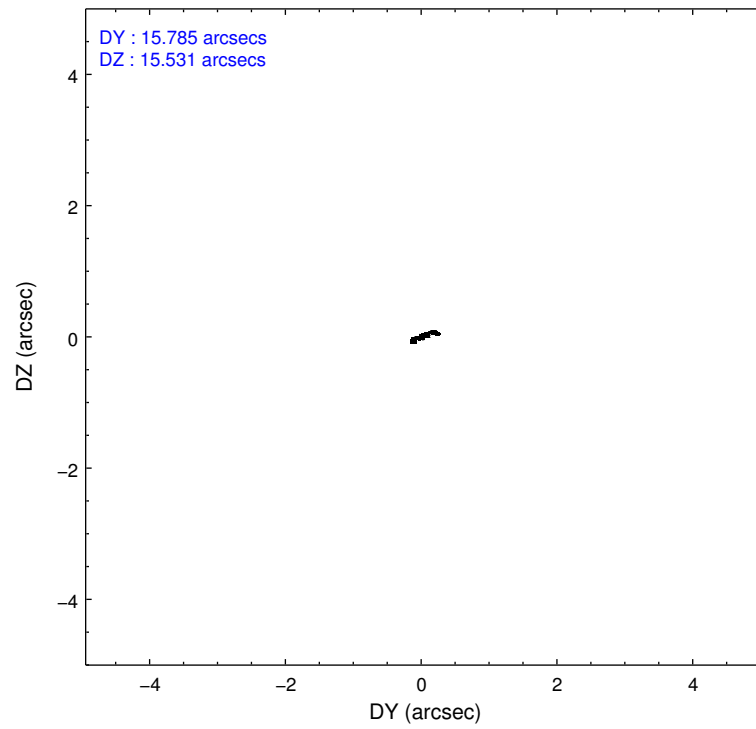
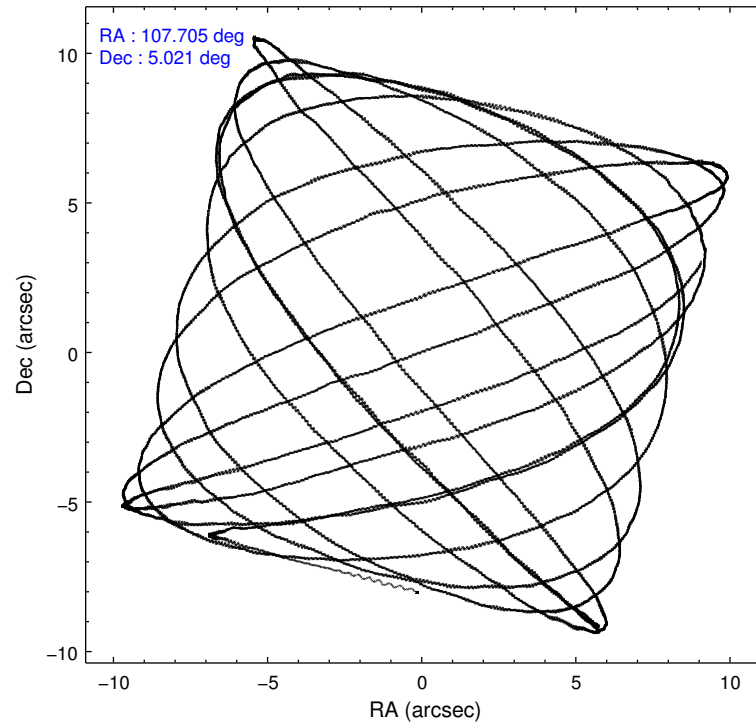
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	575	665	1480	801	2093	3155
	1%	2%	21%	2%	31%	8%
grade 1 events	12	11	120	7	53	33
	0%	0%	1%	0%	0%	0%
grade 2 events	349	127	1677	288	1605	2769
	1%	0%	23%	0%	24%	7%
grade 3 events	176	157	451	186	599	1180
	0%	0%	6%	0%	8%	3%
grade 4 events	180	143	511	171	599	1100
	0%	0%	7%	0%	8%	2%
grade 5 events	43	42	409	25	162	210
	0%	0%	5%	0%	2%	0%
grade 6 events	136	92	473	101	565	3148
	0%	0%	6%	0%	8%	8%
grade 7 events	30455	26439	1894	28340	1008	26128
	95%	95%	26%	94%	15%	69%

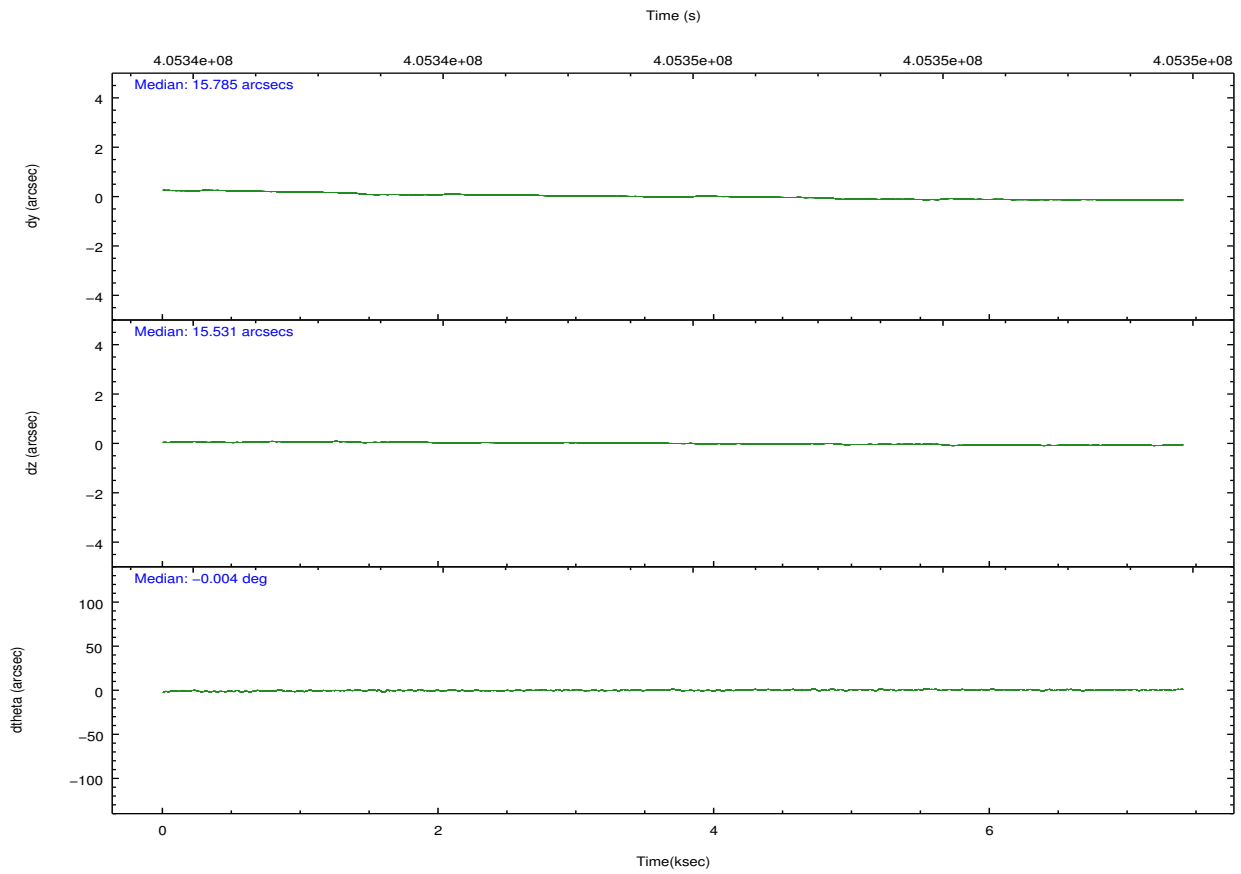
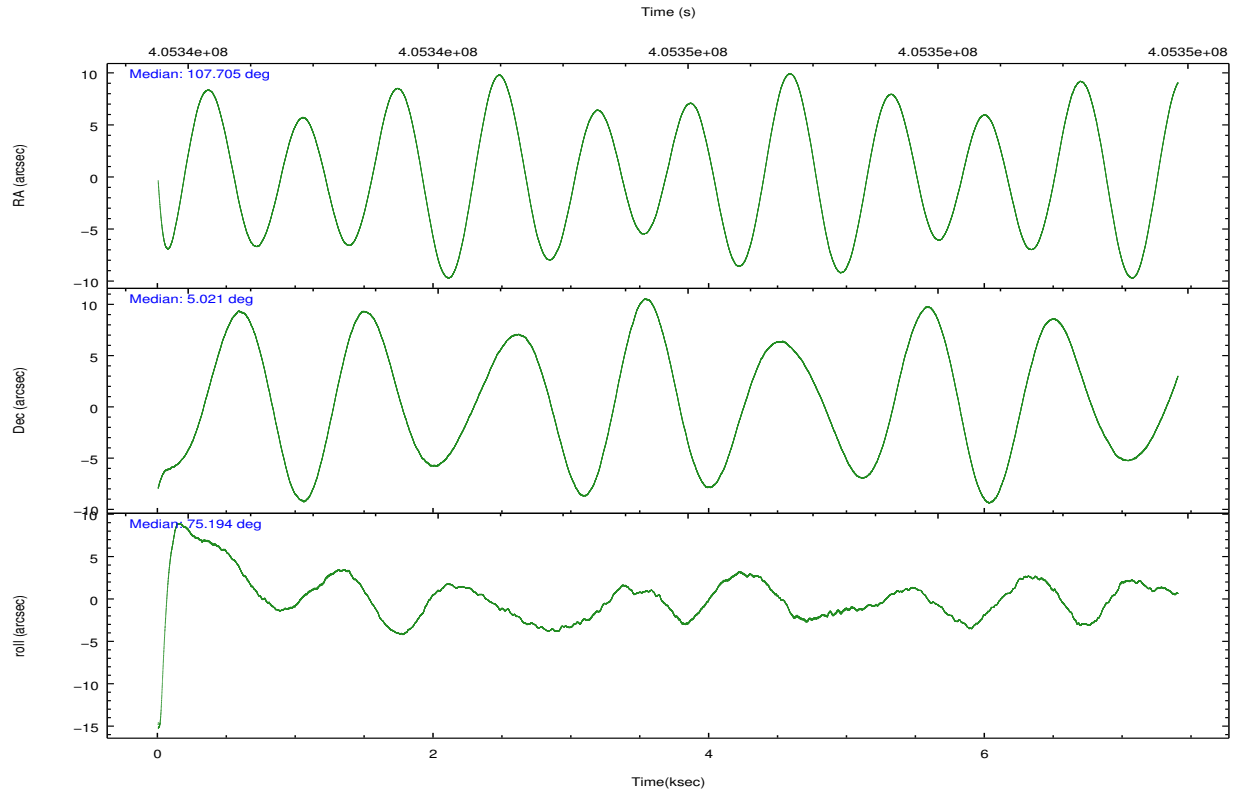


## 2.2 Compared Parameters

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	107.712542	107.7049684777621	Subarray requested	NONE	NONE
[deg] Pointing Dec	4.995225	5.021456705957086	Alternating exposures requested	N	N
[deg] Pointing Roll	75.040397	75.19765297681646	[s] Primary exposure time	0.000000	3.2
[s] Window start time (MET)	405179766.184000	405179766.184000			
[s] Window stop time (MET)	405352566.184000	405352566.184000			
[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)	405343050.184000	405341448.60816			
Observation start date	2010-11-05T11:16:24	2010-11-05T10:50:48			
[s] Observation end time (MET)	405349550.184000	405349684.48358			
Observation end date	2010-11-05T13:04:44	2010-11-05T13:08:04			
Read mode	TIMED	TIMED			

## 2.3 Aspect



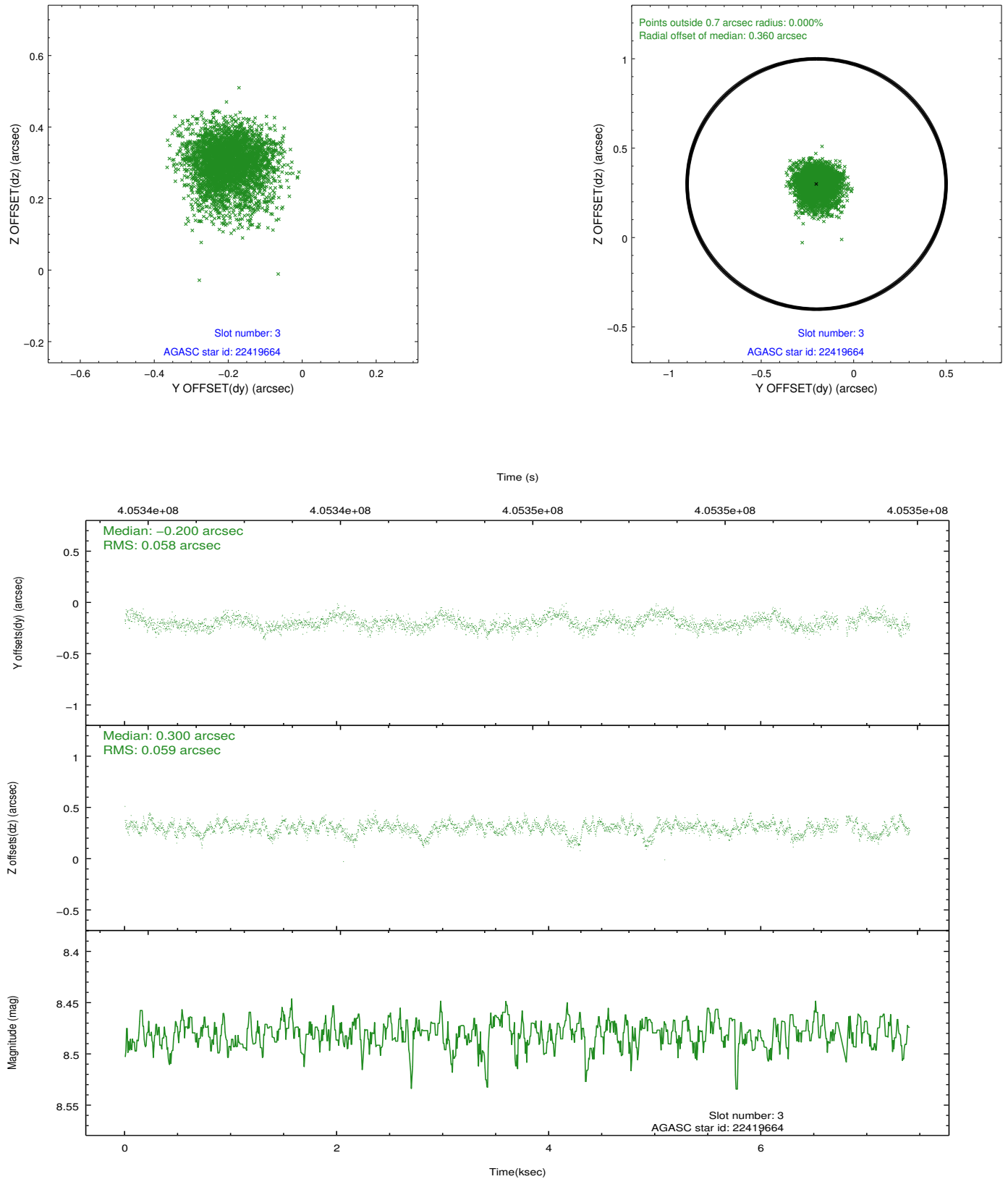


### Slot Statistics

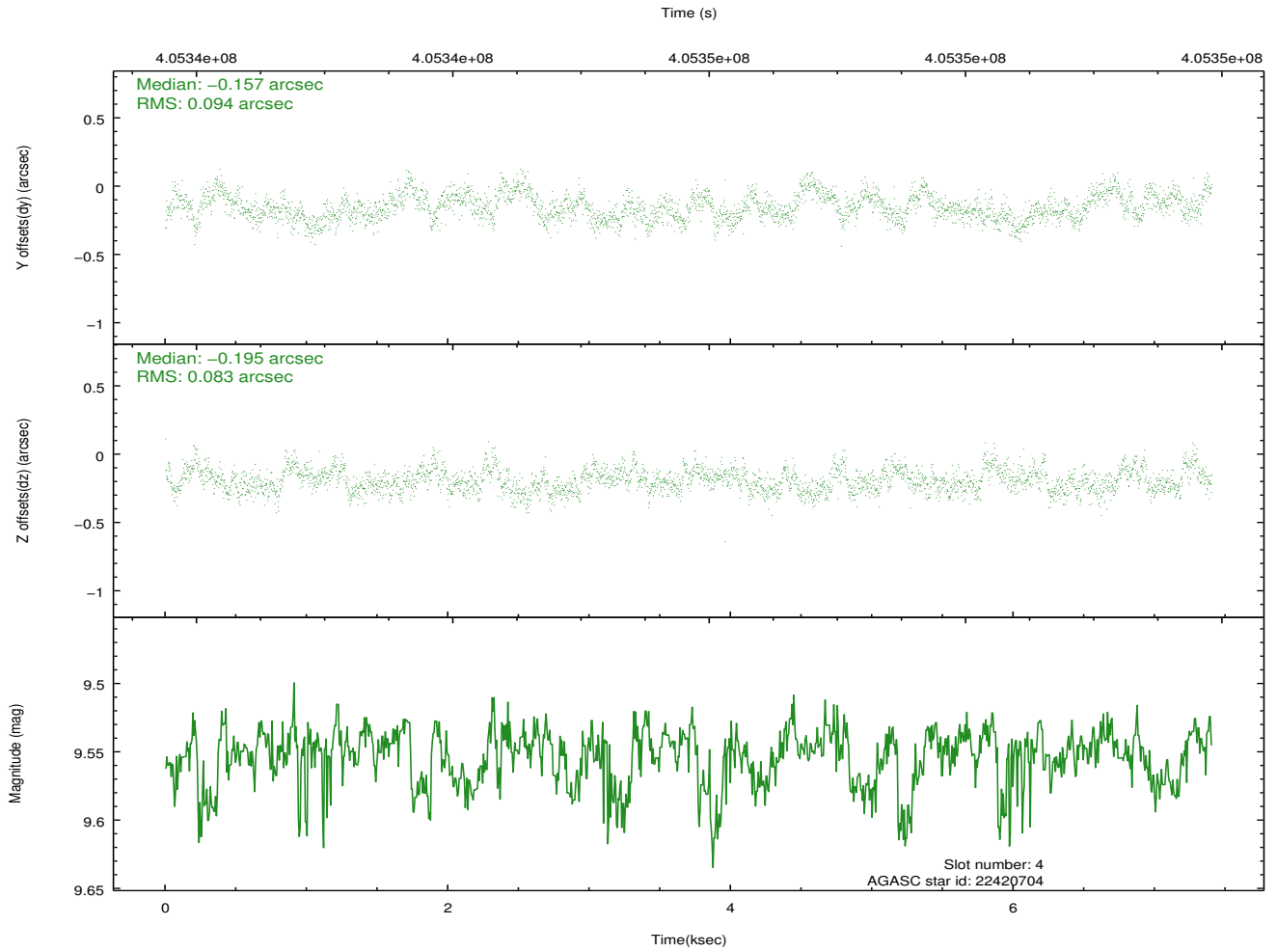
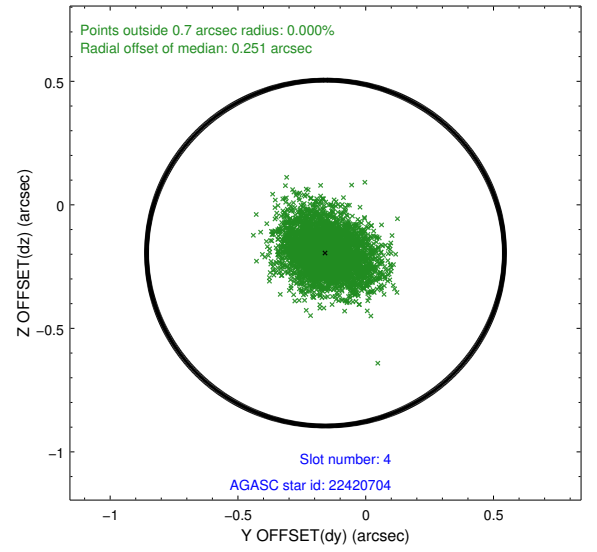
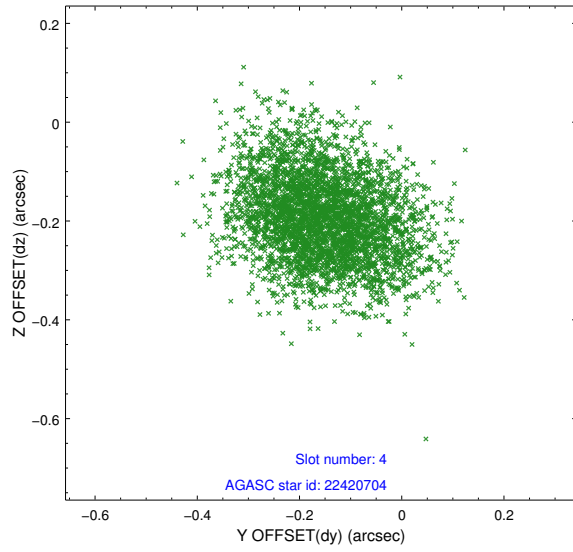
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.94	1804	-0.041	-0.007	0.006	0.010	0.000000	0.000000	-768.82	-1736.93
1	FID	ACIS-S-5	7.05	1805	-0.048	-0.040	0.008	0.014	0.000000	0.000000	-1822.30	164.20
2	FID	ACIS-S-6	7.16	1805	0.063	0.055	0.007	0.013	0.000000	0.000000	392.05	809.09
3	GUIDE	22419664	8.48	3567	-0.200	0.300	0.088	0.147	108.333981	5.243670	1440.62	-1920.58
4	GUIDE	22420704	9.55	3610	-0.157	-0.195	0.135	0.215	107.233866	5.285372	567.38	1927.17
5	GUIDE	22442344	9.66	3607	0.404	0.356	0.140	0.222	107.861507	4.321221	-2205.16	-1141.85
6	GUIDE	22422144	9.66	3604	-0.239	-0.351	0.133	0.219	107.410911	5.399265	1125.94	1419.67
7	GUIDE	22430664	9.64	3607	0.180	-0.105	0.101	0.163	107.490969	4.460578	-2063.76	271.97

## 2.4 Star Slots

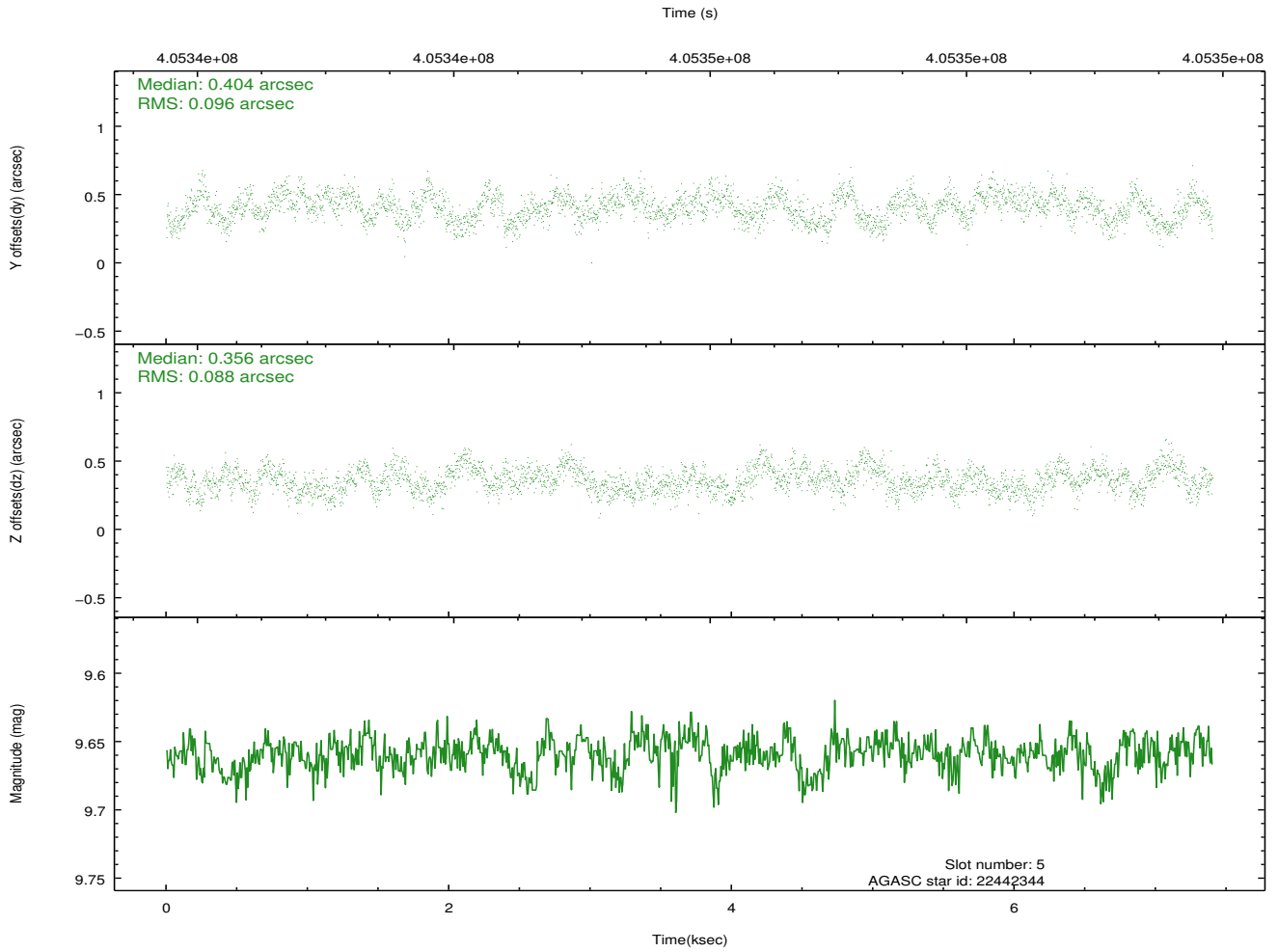
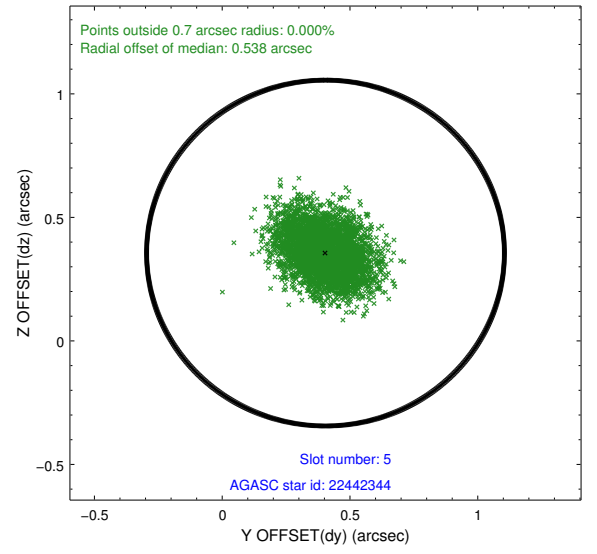
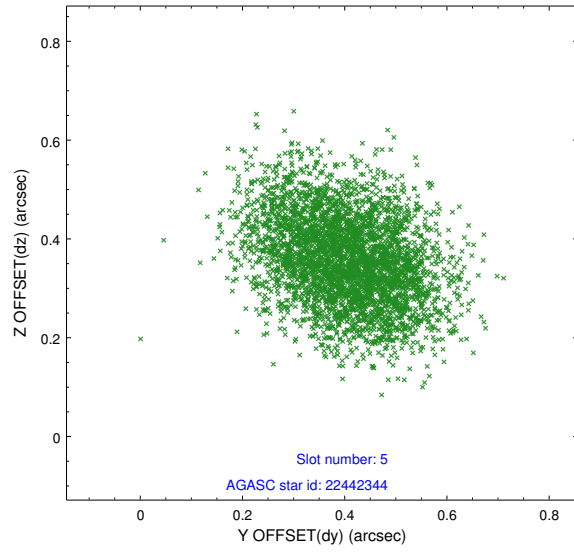
### 2.4.1 Slot 3



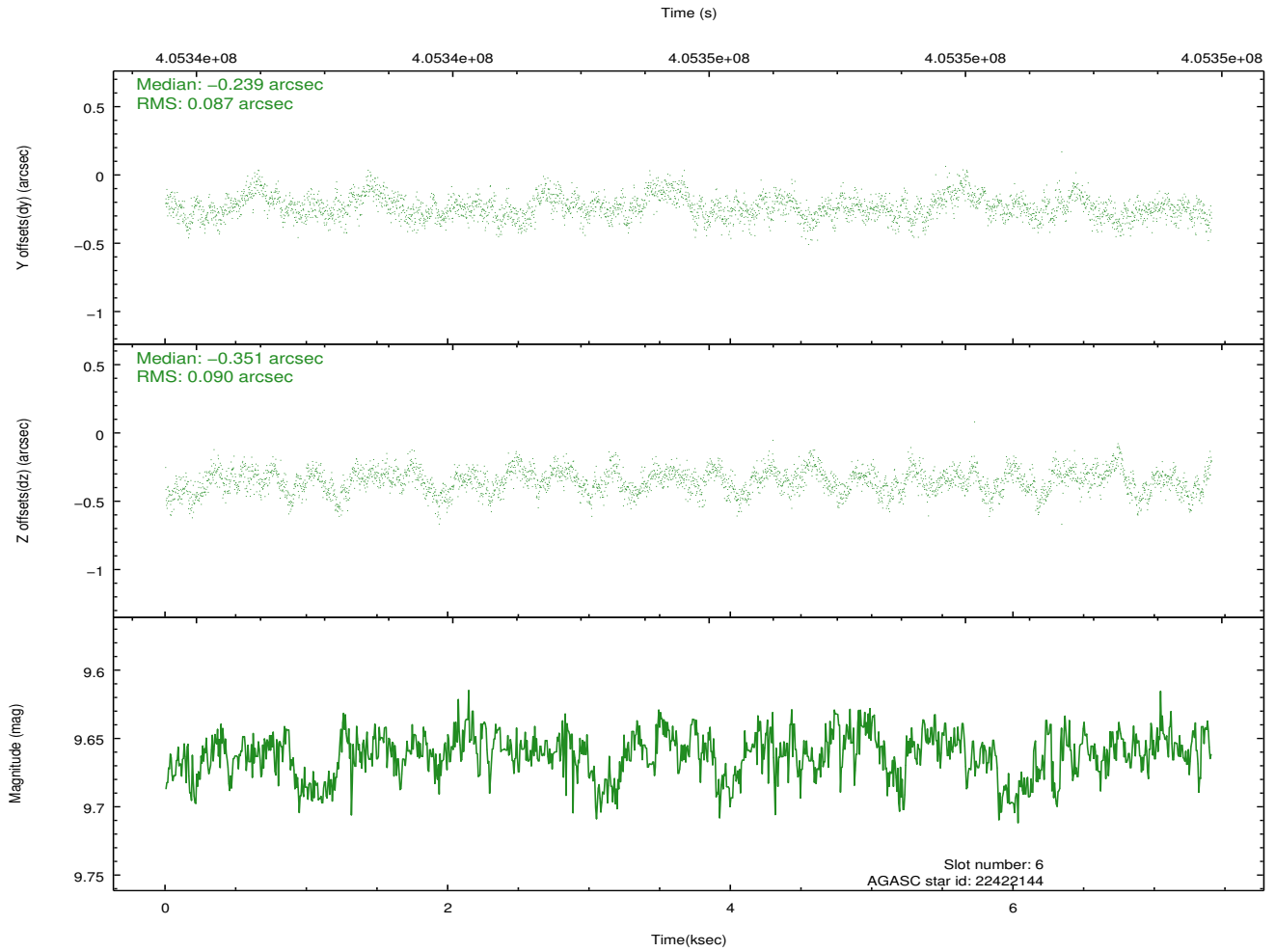
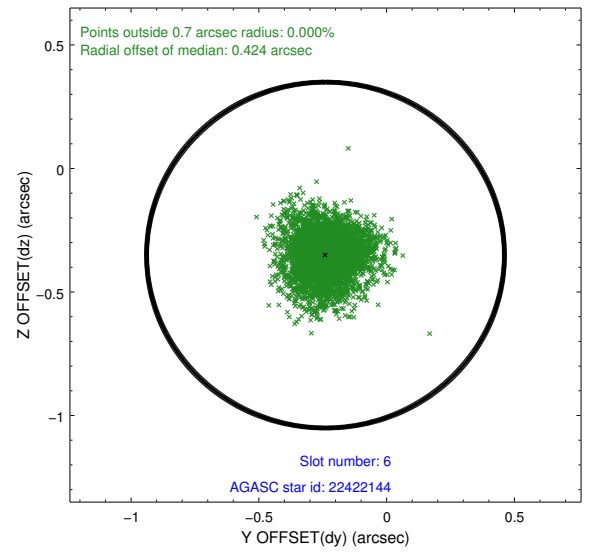
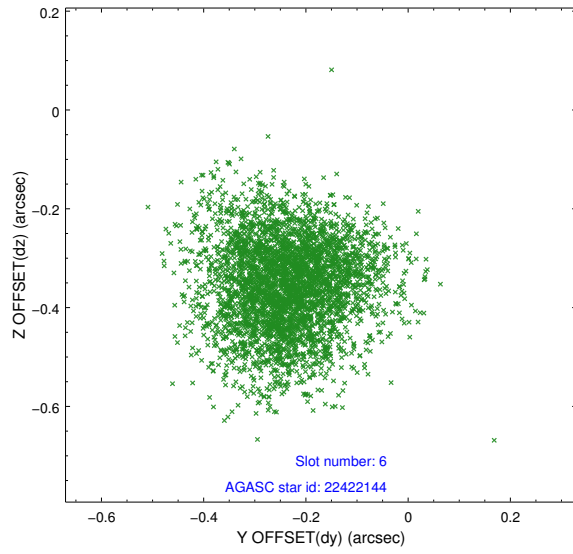
## 2.4.2 Slot 4



### 2.4.3 Slot 5

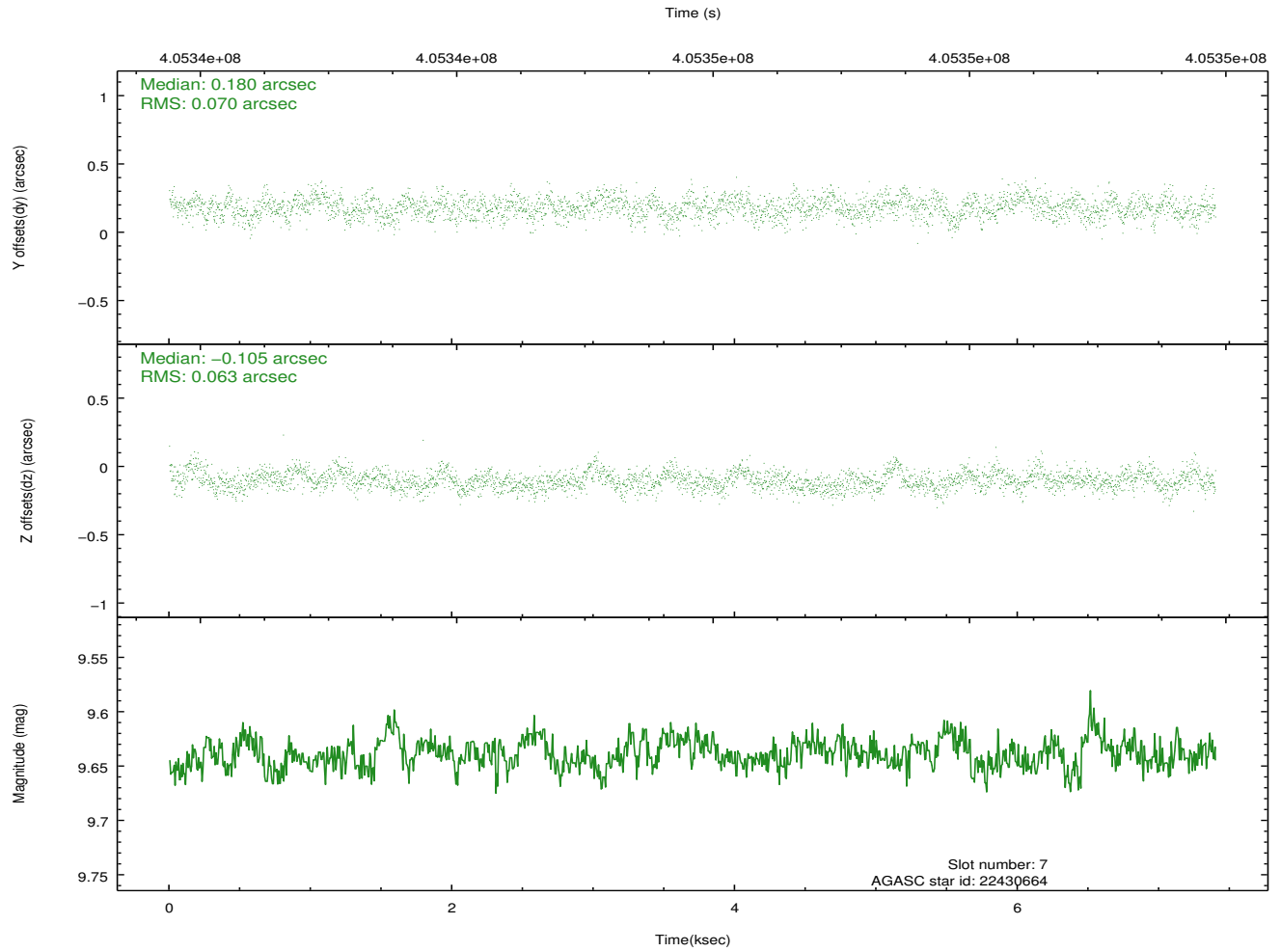
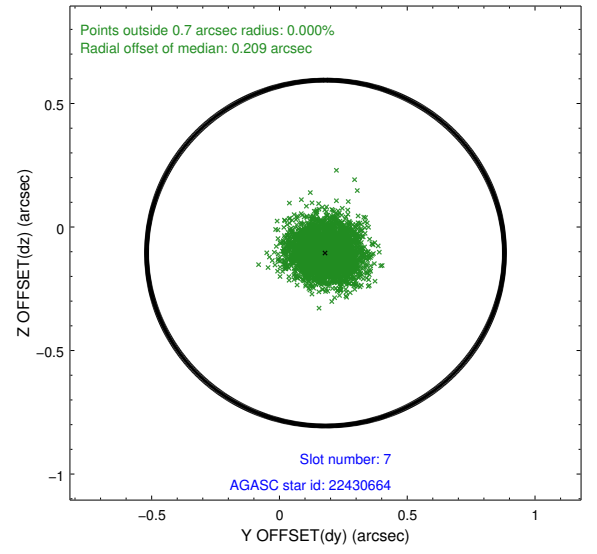
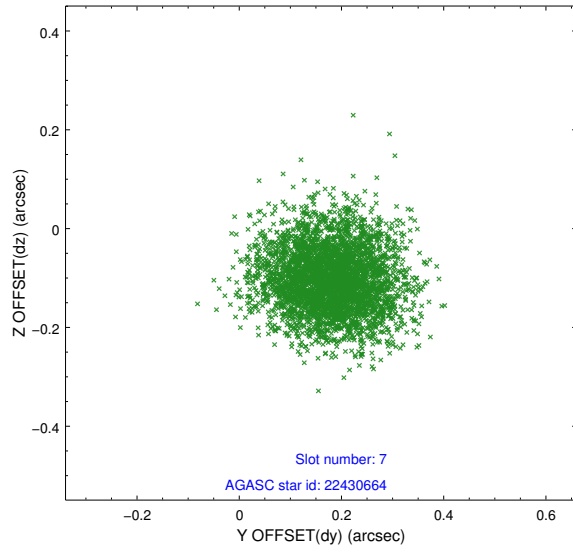


## 2.4.4 Slot 6



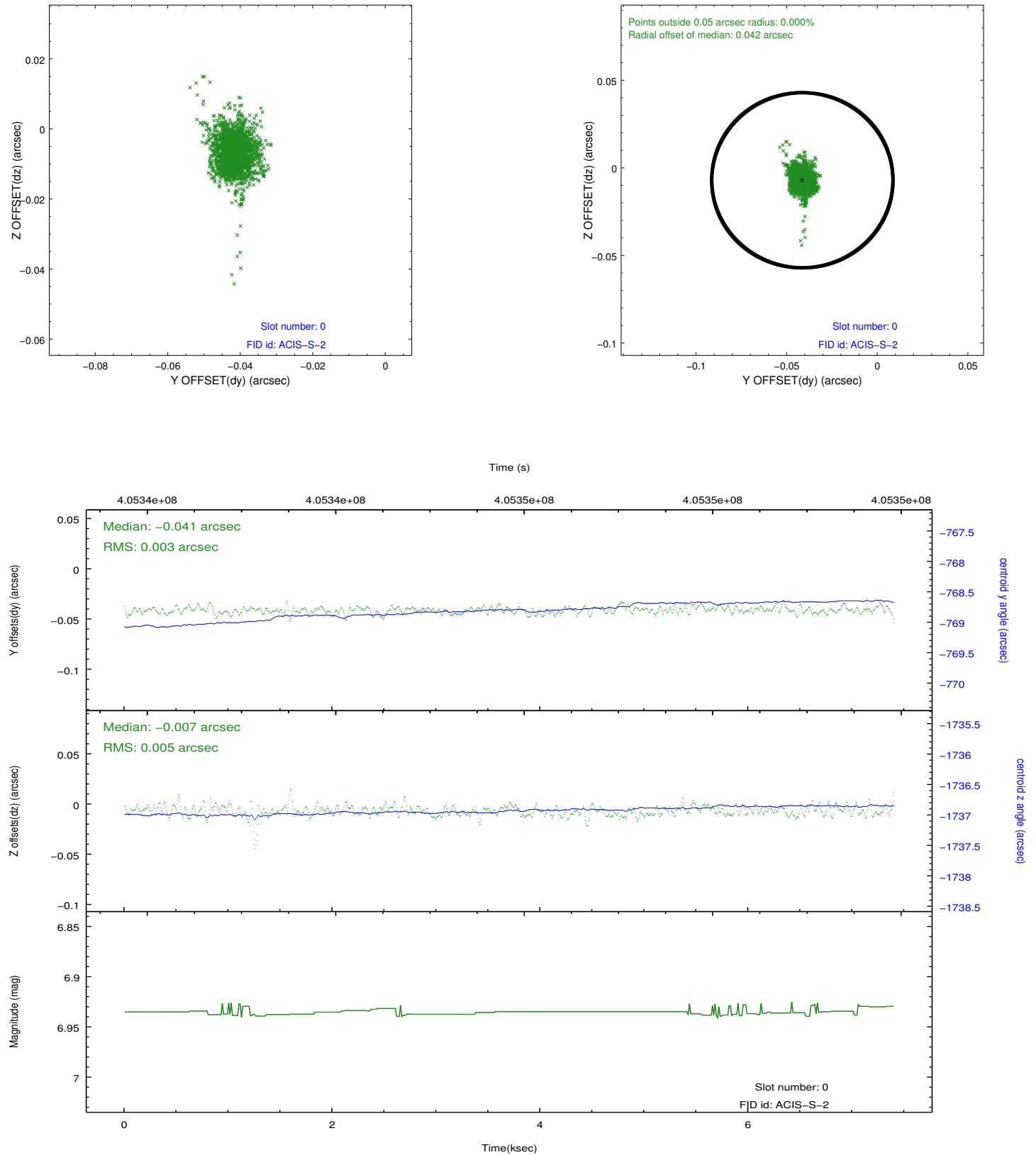


### 2.4.5 Slot 7

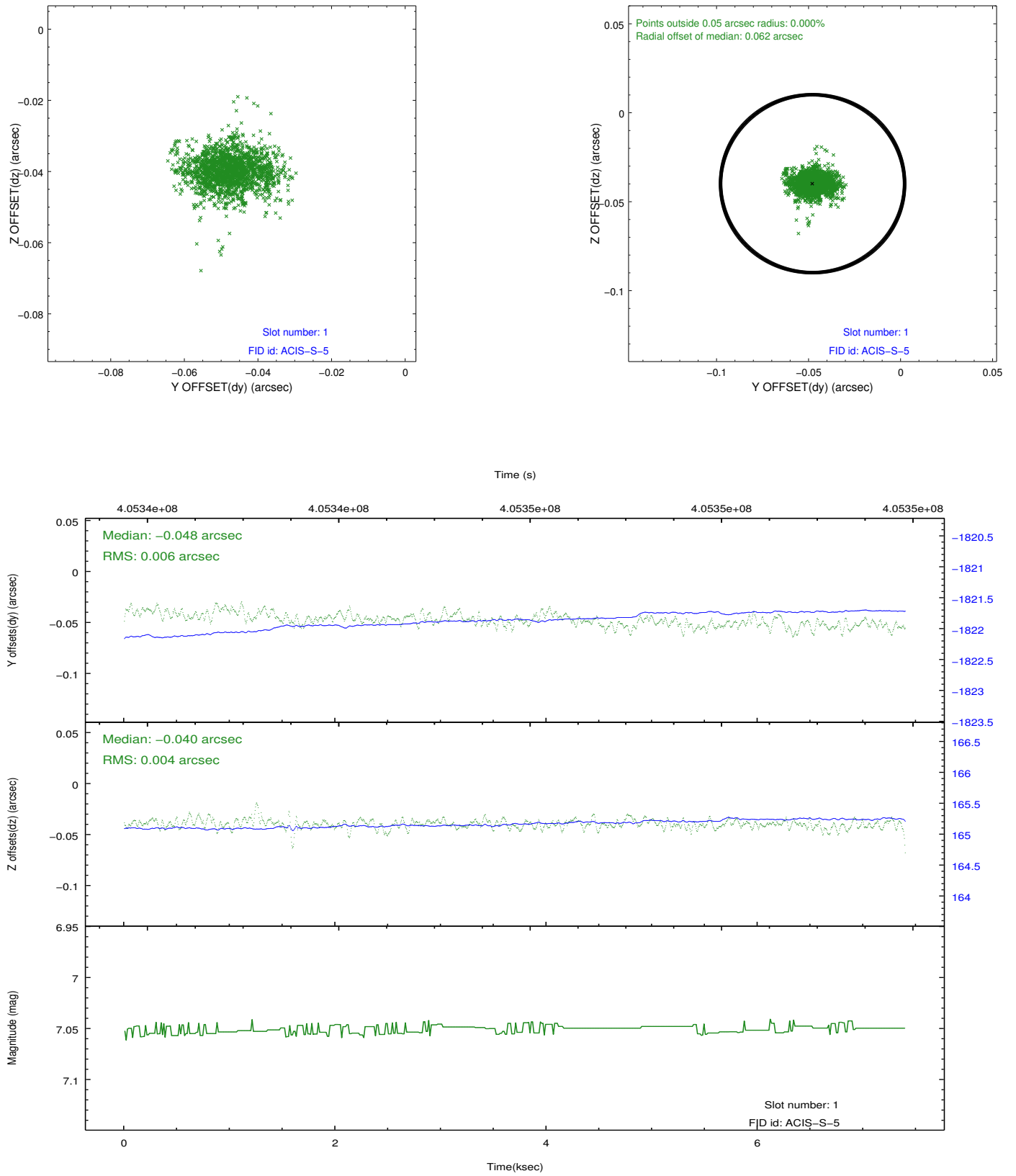


## 2.5 FID Slots

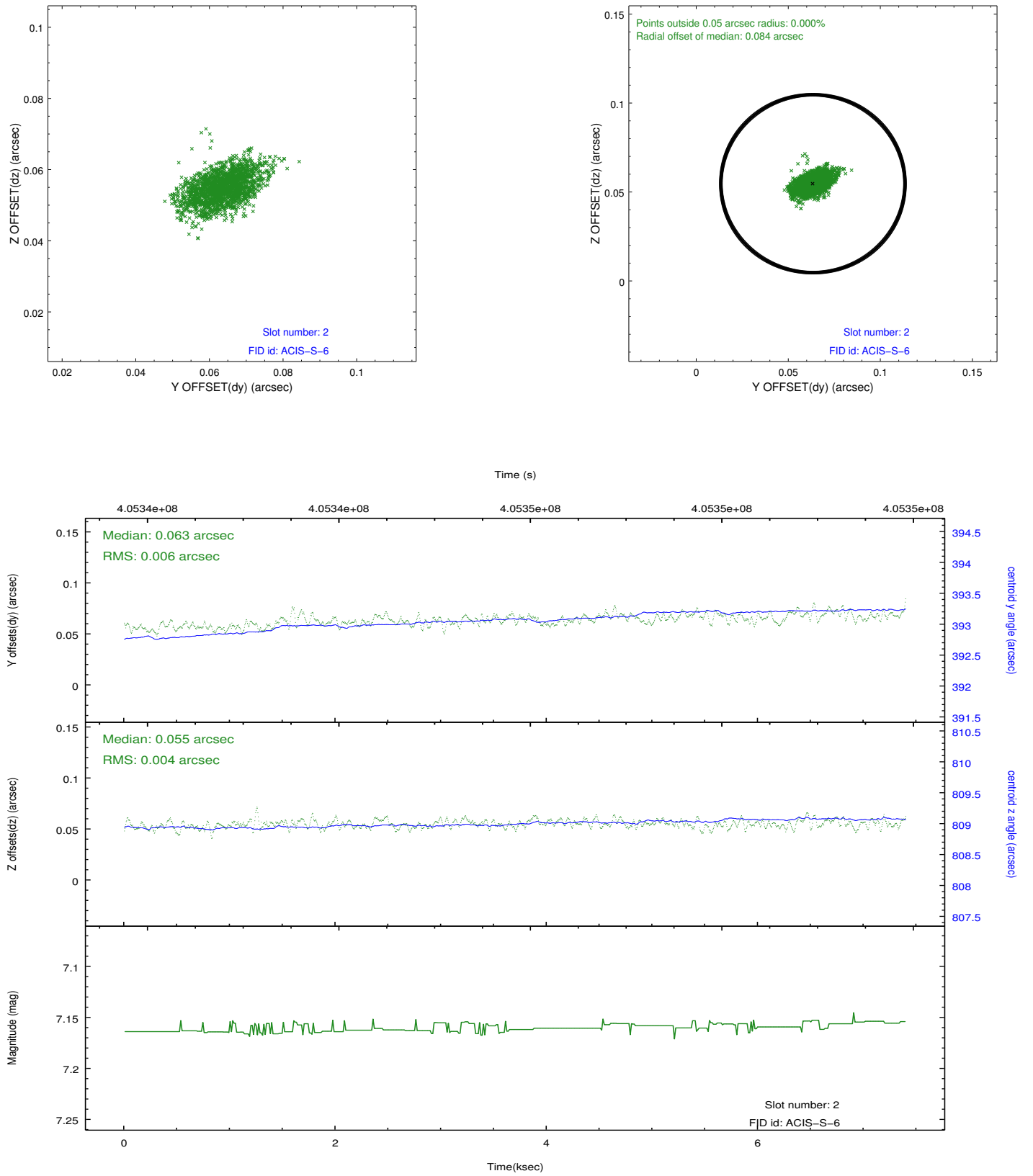
### 2.5.1 Slot 0



## 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)	2012.07.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	6.4631096611023

## A.2 Comments

The comet was moving with respect to the satellite during this observation. In order to analyze the data, the user should run sso\_freeze or a similar software package that reprojects the events into the coordinate system of the comet.

=====

Window constraint met.