

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13176 - L2 Version 2  
Chandra X-Ray Center

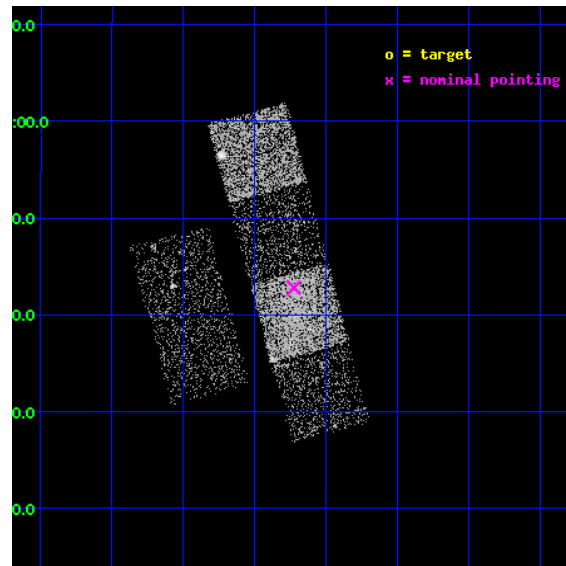
L2 Processing Date : Jul 6 2012

## 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

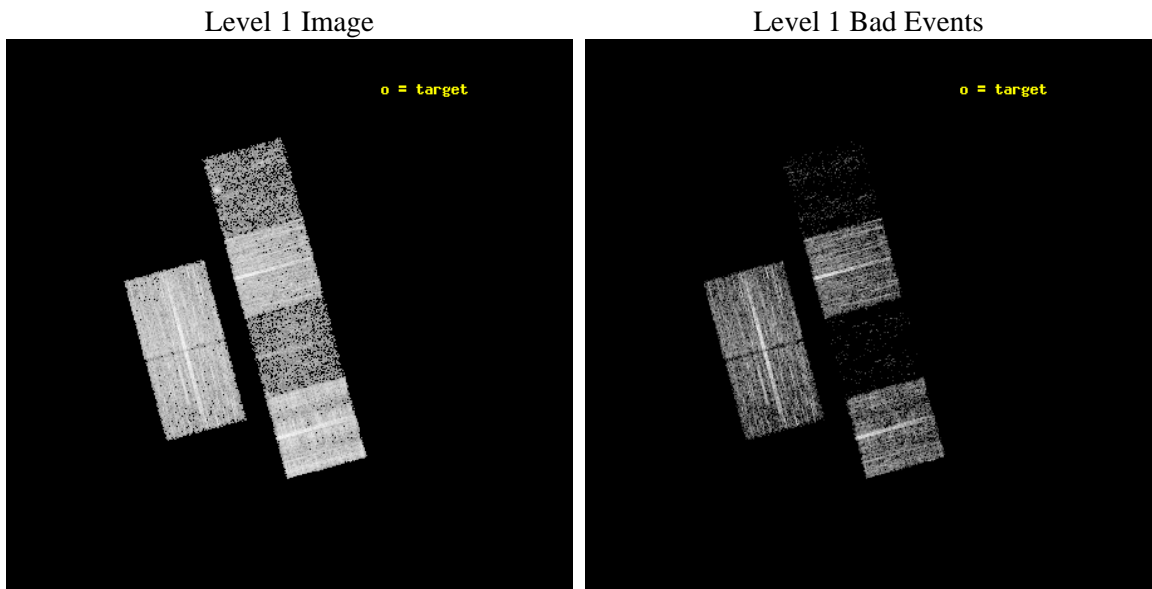
seq_num	100090	Sequence number
obs_id	13176	Observation id
title	Comet 103P/Hartley 2 During the EPOXI Spacecraft Encounter	Proposa
observer	Dr. Carey Lisse	Principal investigator
object	103P/Hartley 2	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	106.306208	Observer's specified target RA [deg]
dec_targ	7.21925	Observer's specified target Dec [deg]
ra_nom	107.80673169703	Nominal RA [deg]
dec_nom	4.7133854550028	Nominal Dec [deg]
roll_nom	75.00444913667	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6675.1999751925	Sum of GTIs [s]
livetime	6590.6745737838	Livetime [s]
ontime2	6675.1999751925	Sum of GTIs [s]
ontime3	6675.1999751925	Sum of GTIs [s]
ontime5	6675.1999751925	Sum of GTIs [s]
ontime6	6675.1999751925	Sum of GTIs [s]
ontime7	6675.1999751925	Sum of GTIs [s]
ontime8	6675.1999751925	Sum of GTIs [s]
l2events	14170	Number of level 2 events



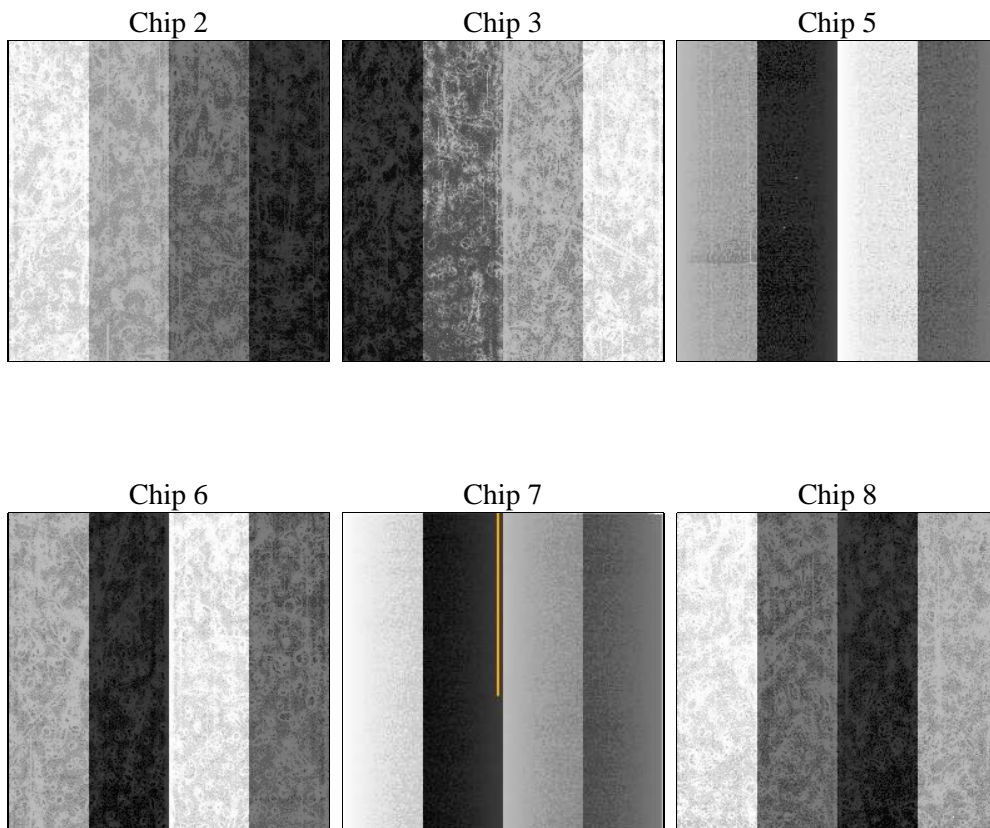
## 2 OBI

### 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	6675.1999751925	Sum of GTIs [s]
caldsver	4.5.0	&#160	ontime2	6675.1999751925	Sum of GTIs [s]
date	2012-07-06T12:24:31	Date and time of file creation	ontime3	6675.1999751925	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	6675.1999751925	Sum of GTIs [s]
			ontime6	6675.1999751925	Sum of GTIs [s]
			ontime7	6675.1999751925	Sum of GTIs [s]
			ontime8	6675.1999751925	Sum of GTIs [s]
			l1events	148760	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	34694	28927	7554	29902	7567	40116
rejected events	32943	27894	2626	28377	1434	28118
rejected %	94%	96%	34%	94%	18%	70%

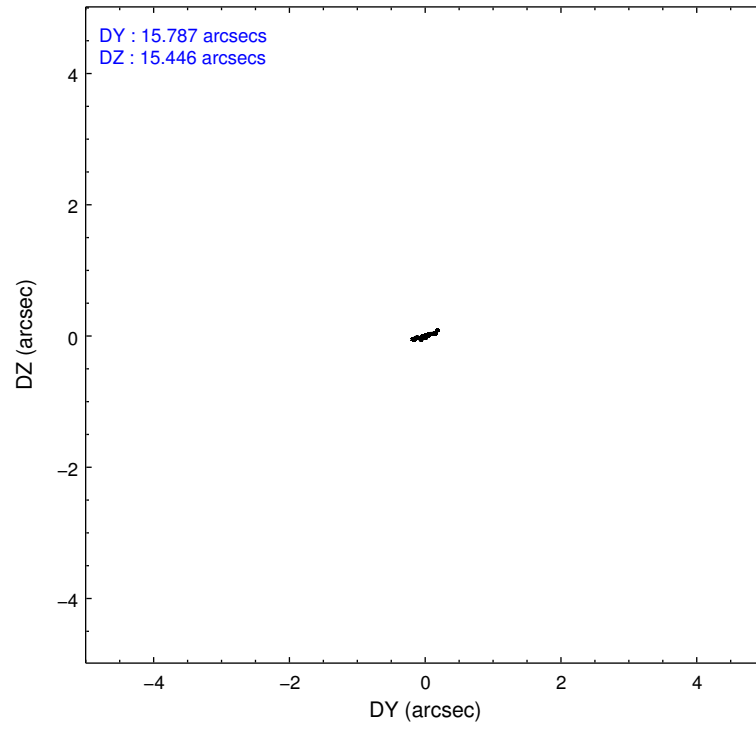
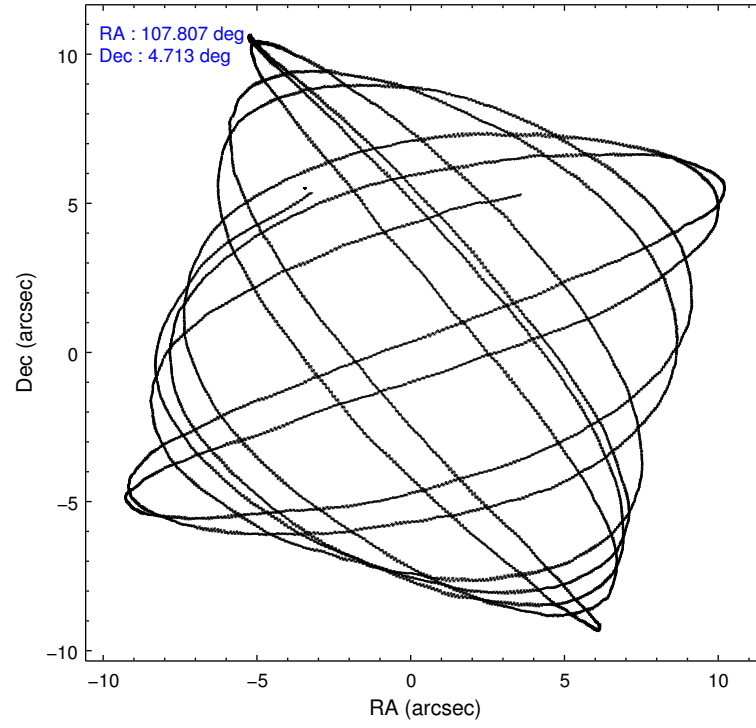
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	787	511	1584	797	2535	3621
	2%	1%	20%	2%	33%	9%
grade 1 events	8	11	116	13	44	33
	0%	0%	1%	0%	0%	0%
grade 2 events	473	154	1932	303	1784	2834
	1%	0%	25%	1%	23%	7%
grade 3 events	156	156	533	179	693	1441
	0%	0%	7%	0%	9%	3%
grade 4 events	224	139	510	187	674	1323
	0%	0%	6%	0%	8%	3%
grade 5 events	45	31	454	40	192	241
	0%	0%	6%	0%	2%	0%
grade 6 events	178	113	509	97	608	3205
	0%	0%	6%	0%	8%	7%
grade 7 events	32823	27812	1916	28286	1037	27418
	94%	96%	25%	94%	13%	68%

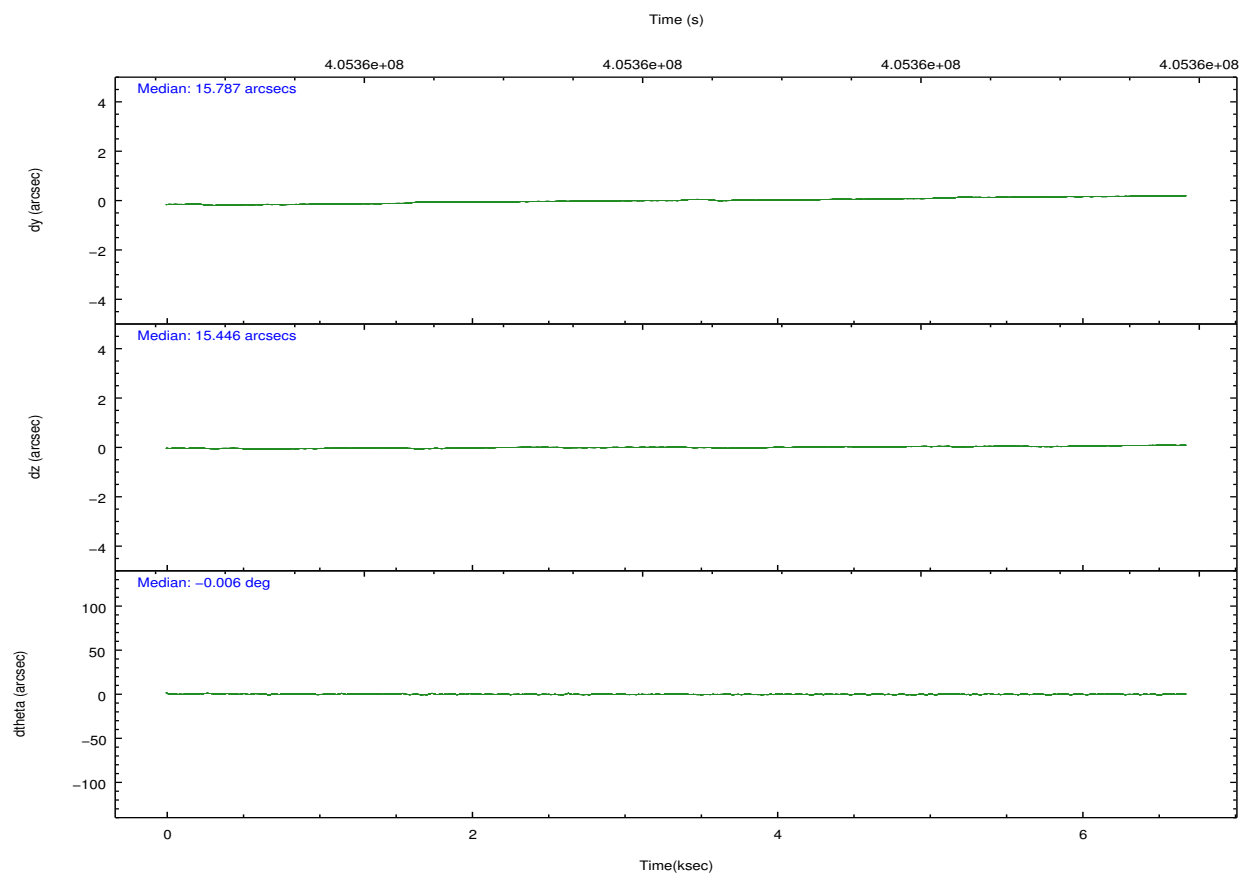
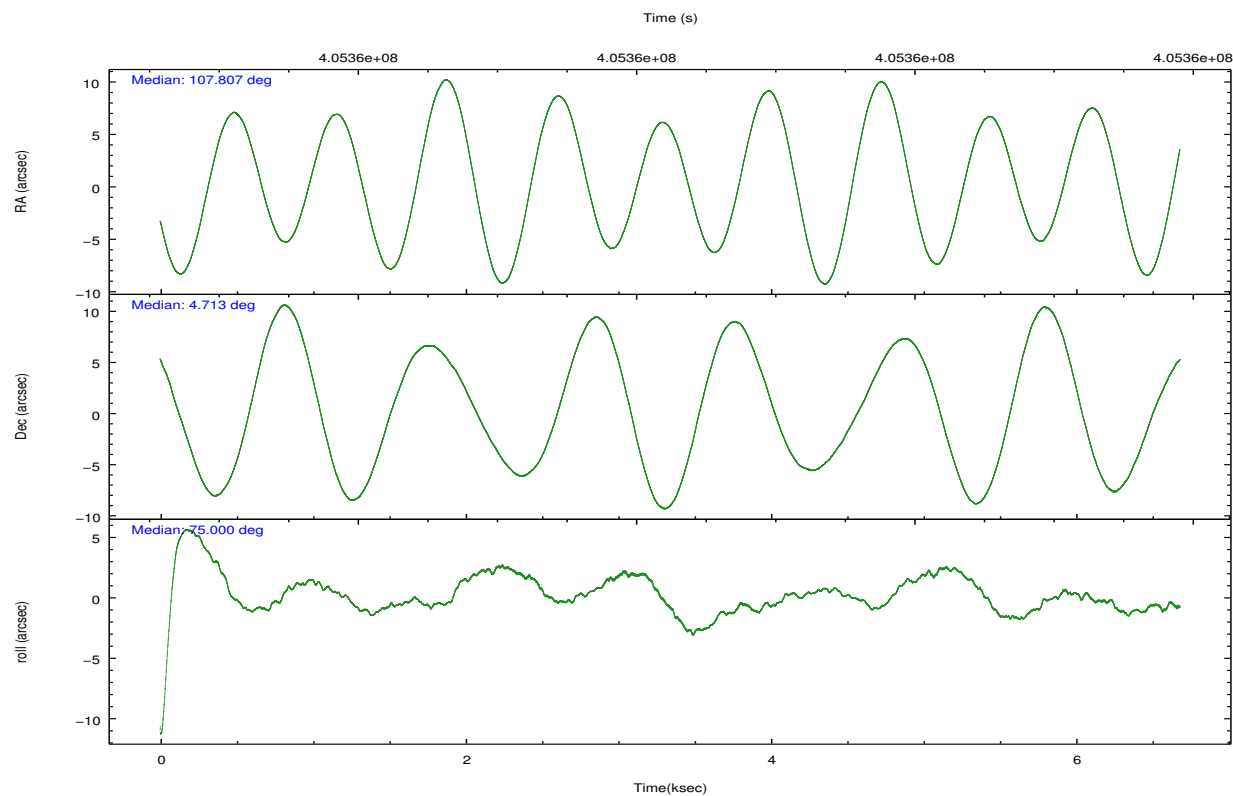


## 2.2 Compared Parameters

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	107.814301	107.8067316970319	Subarray requested	NONE	NONE
[deg] Pointing Dec	4.687128	4.713385455002794	Alternating exposures requested	N	N
[deg] Pointing Roll	74.847198	75.00444913666959	[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)	405357070.184000	405356694.45894			
Observation start date	2010-11-05T15:10:04	2010-11-05T15:04:54			
[s] Observation end time (MET)	405363570.184000	405364509.05934			
Observation end date	2010-11-05T16:58:24	2010-11-05T17:15:09			
Read mode	TIMED	TIMED			

## 2.3 Aspect



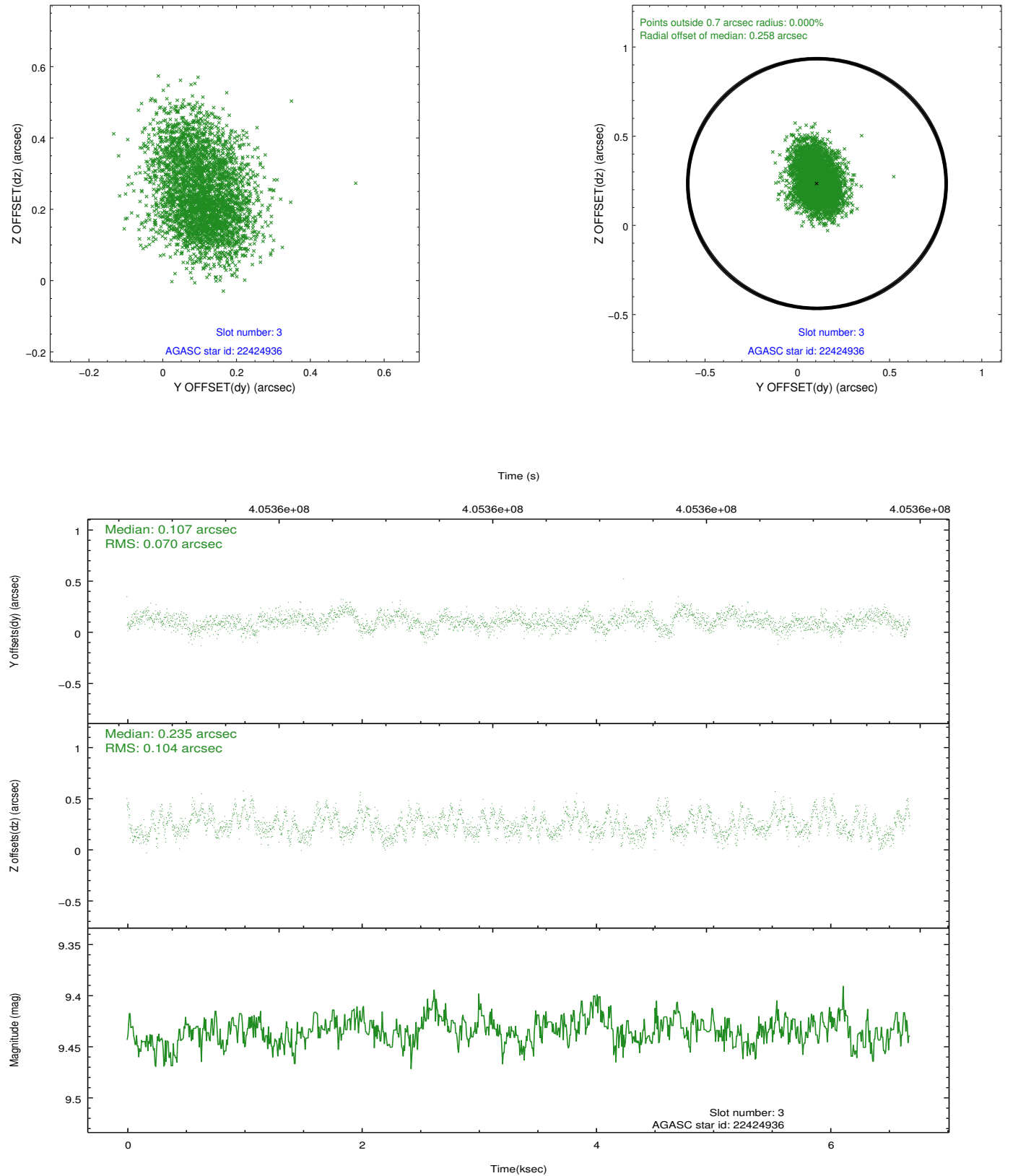


### Slot Statistics

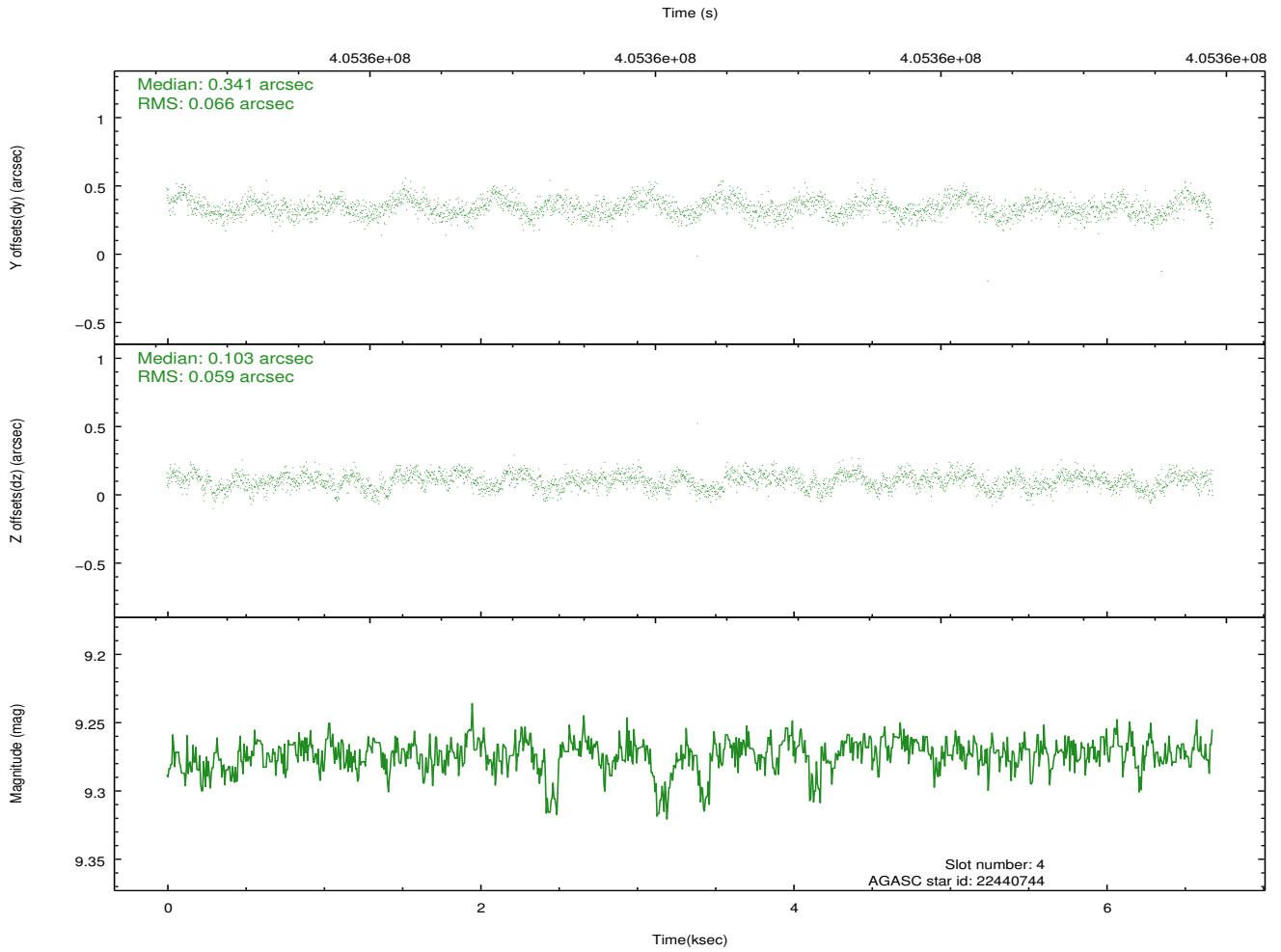
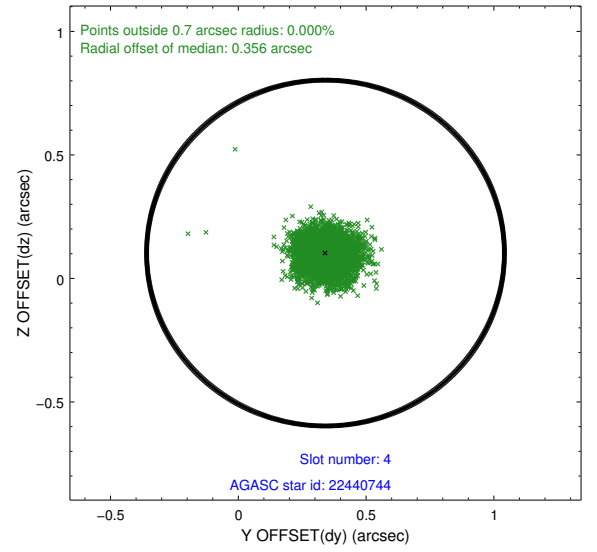
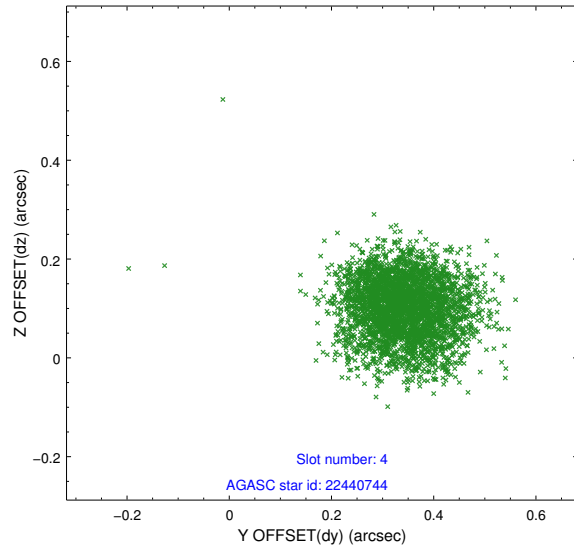
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	6.99	1630	0.014	-0.022	0.008	0.013	0.000000	0.000000	927.28	-1732.48
1	FID	ACIS-S-4	7.01	1630	0.110	0.013	0.006	0.010	0.000000	0.000000	2145.24	170.82
2	FID	ACIS-S-5	7.04	1631	-0.152	0.022	0.006	0.011	0.000000	0.000000	-1820.66	165.37
3	GUIDE	22424936	9.43	3253	0.107	0.235	0.132	0.215	108.282433	4.343230	-754.49	-1945.48
4	GUIDE	22440744	9.27	3256	0.341	0.103	0.094	0.149	107.613863	4.103620	-2215.04	144.82
5	GUIDE	22443192	8.44	3261	0.172	-0.246	0.078	0.126	107.137472	4.393125	-1655.76	2068.15
6	GUIDE	22419664	8.49	3260	-0.285	0.208	0.088	0.150	108.333981	5.243670	2421.41	-1273.59
7	GUIDE	22422144	9.69	3259	-0.335	-0.309	0.118	0.187	107.410911	5.399265	2097.88	2065.12

## 2.4 Star Slots

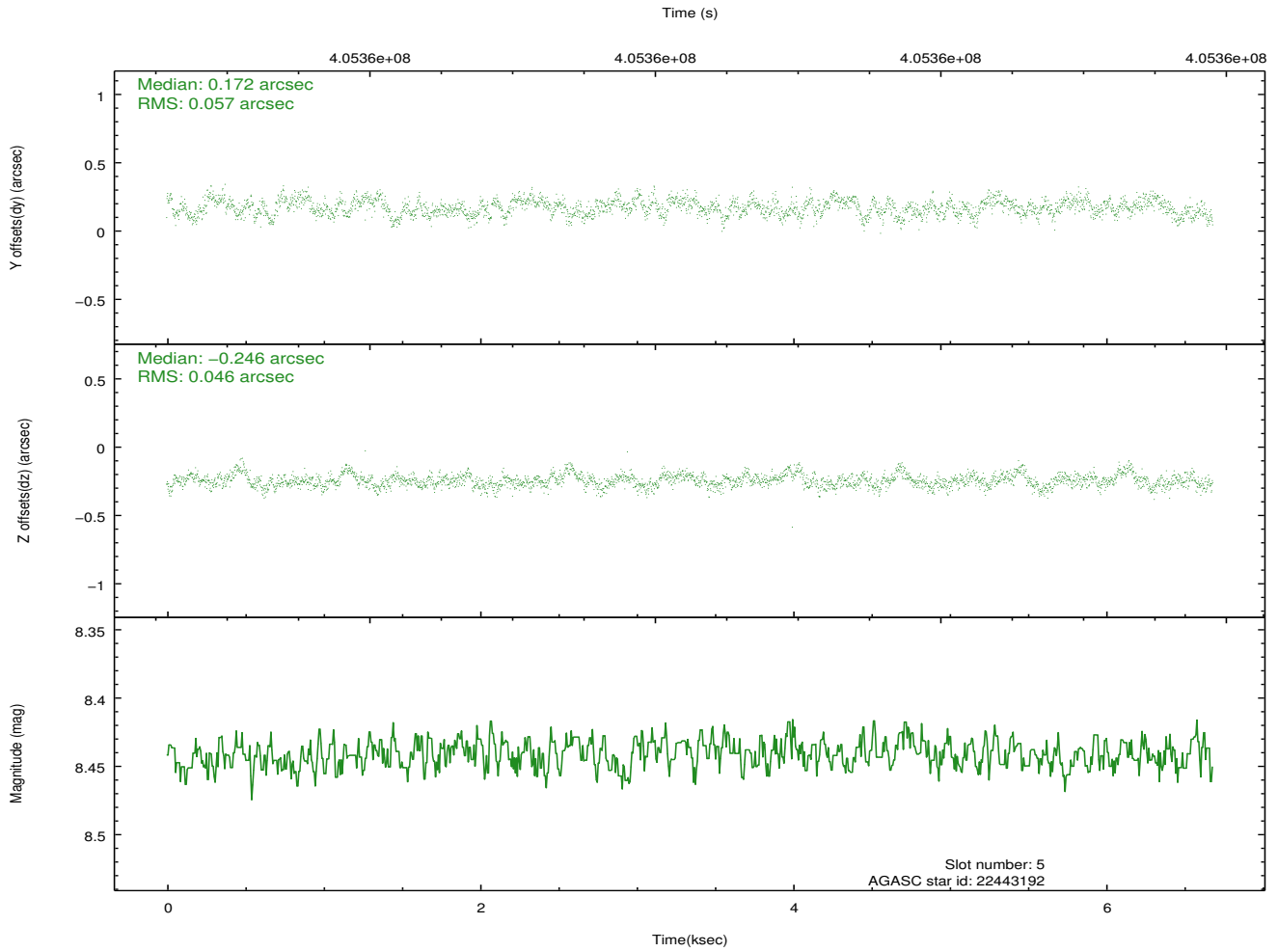
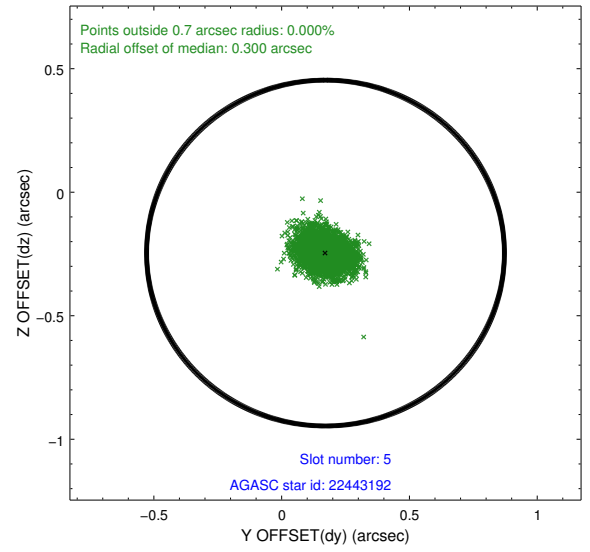
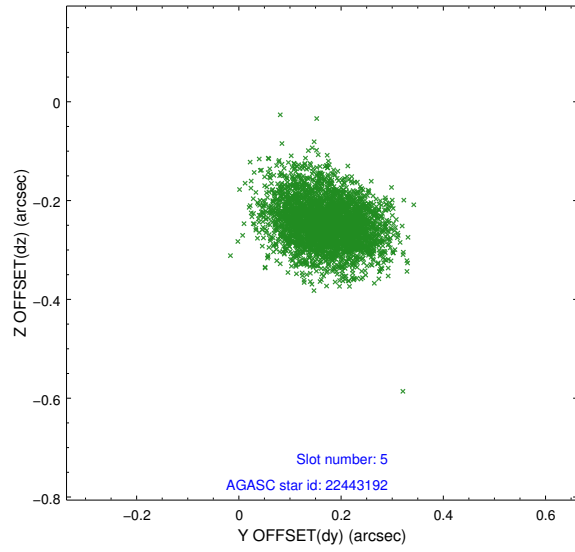
### 2.4.1 Slot 3



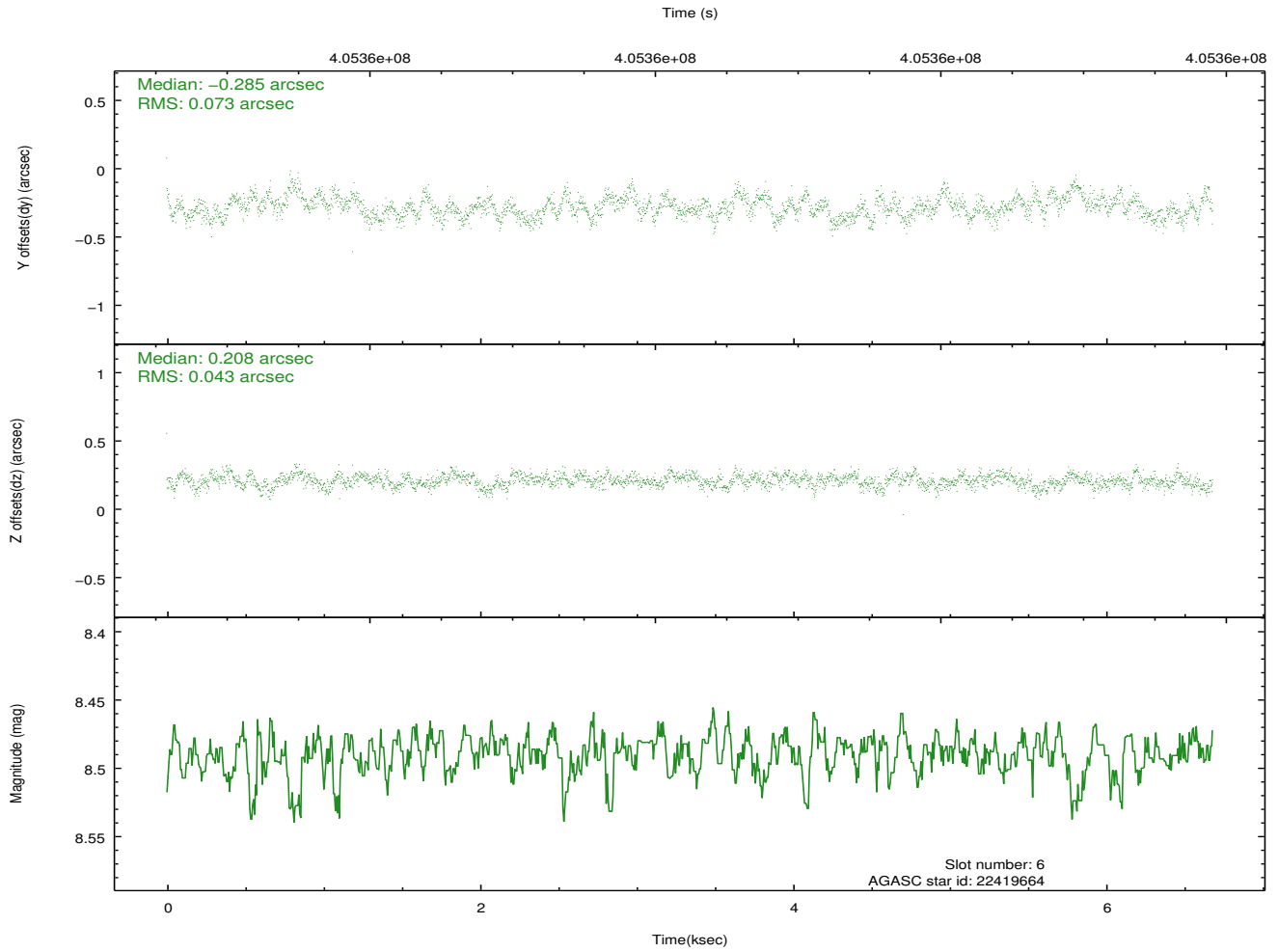
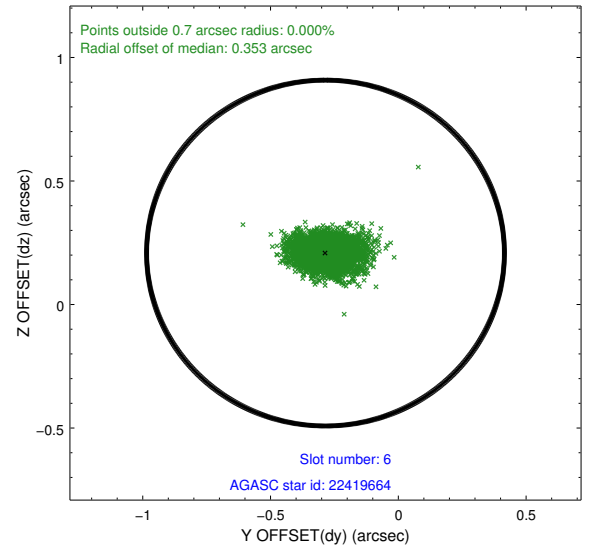
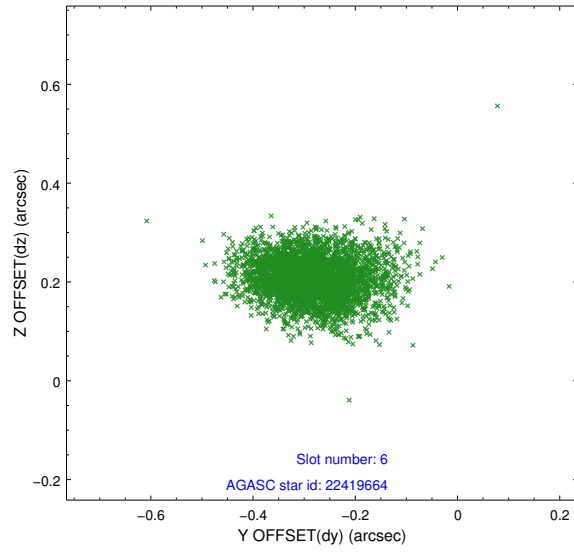
## 2.4.2 Slot 4



### 2.4.3 Slot 5

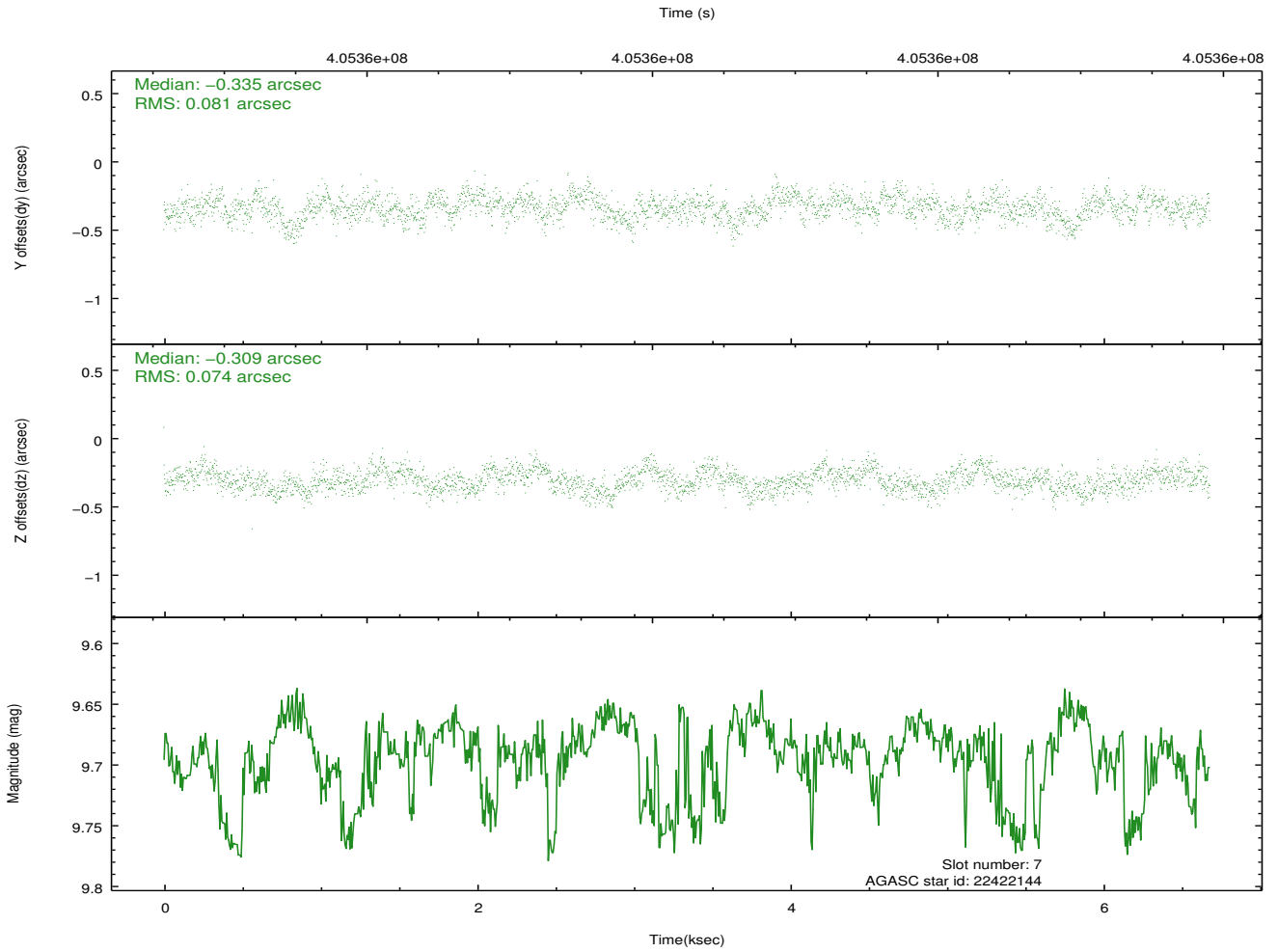
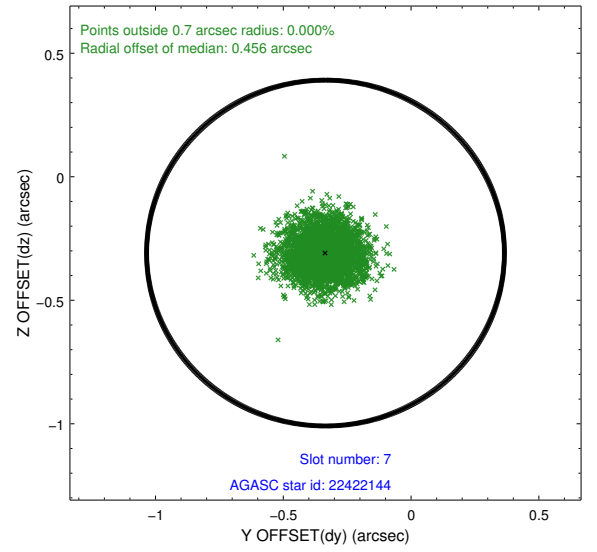
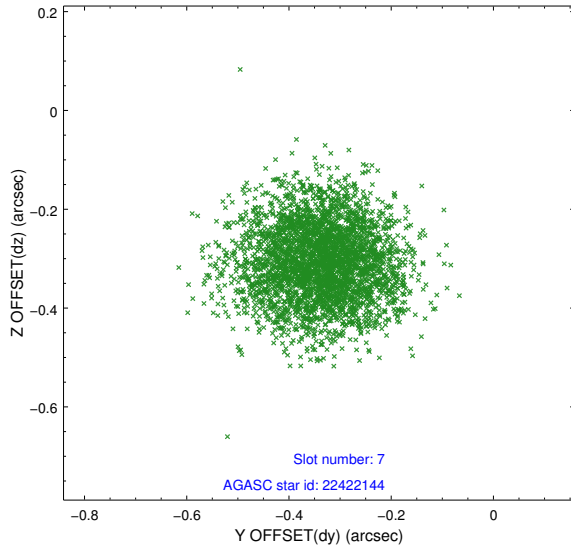


## 2.4.4 Slot 6



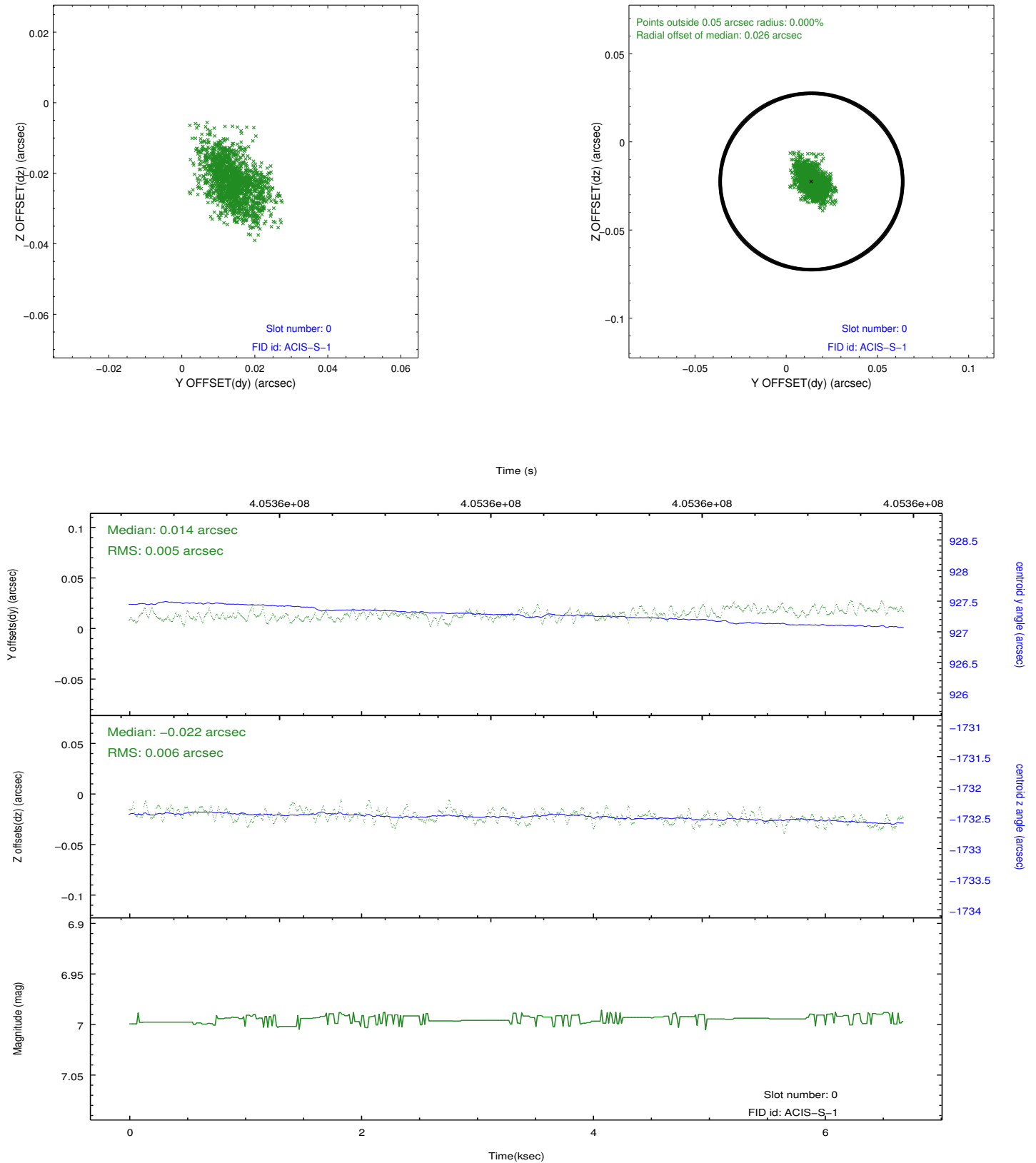


## 2.4.5 Slot 7

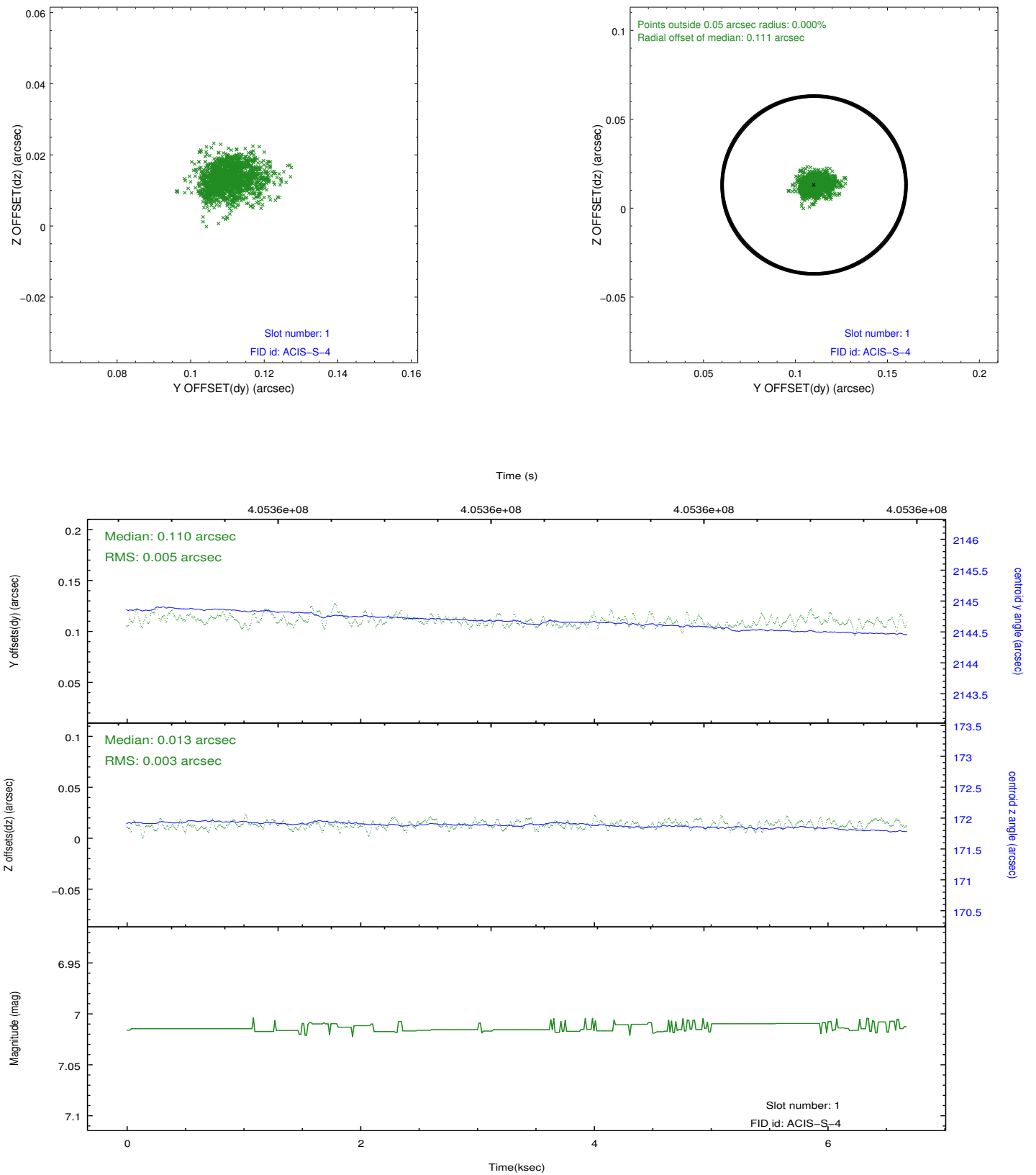


## 2.5 FID Slots

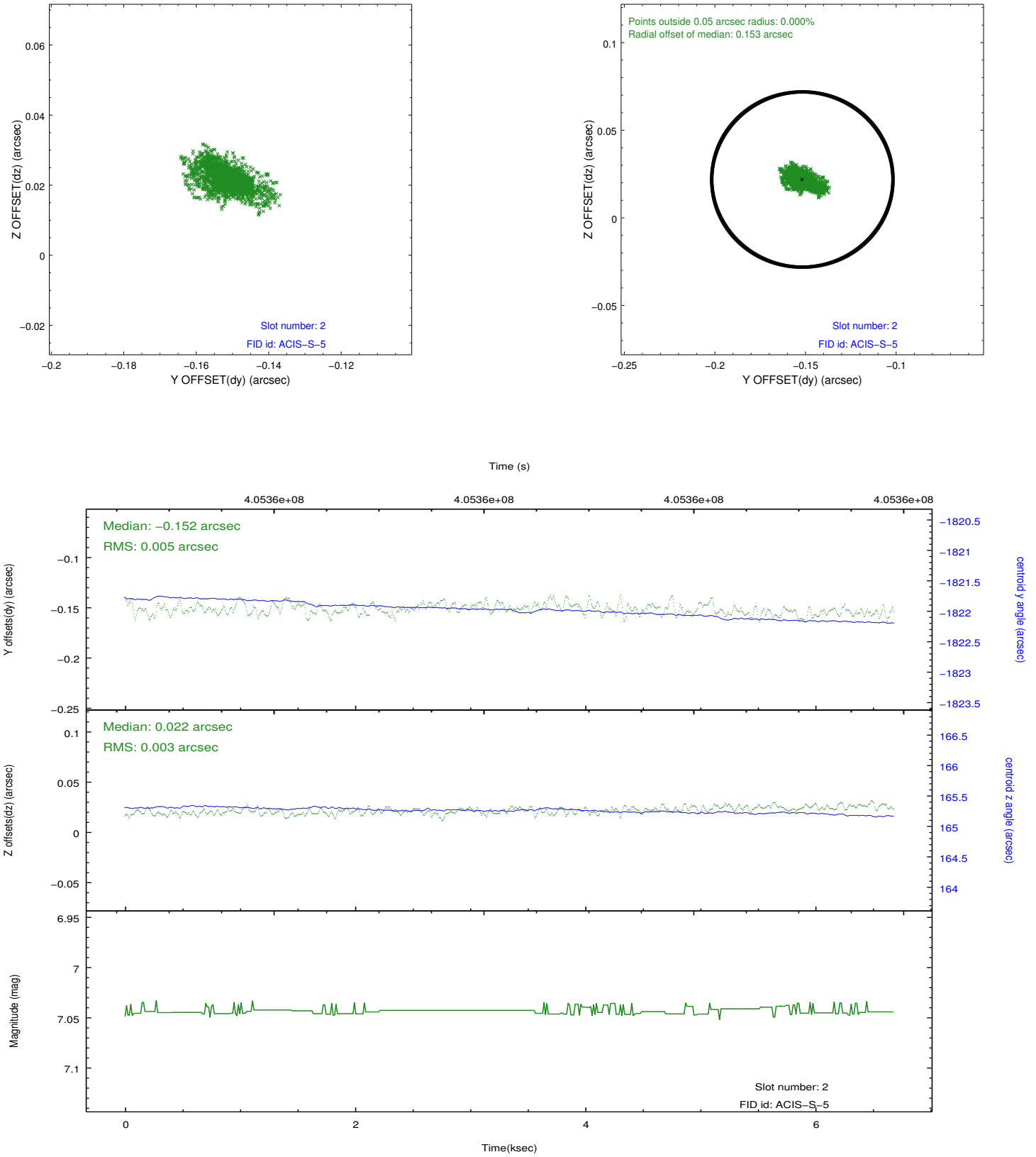
### 2.5.1 Slot 0



## 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	6.6751999751925

## A.2 Comments

The comet was moving with respect to the satellite during the observation. Users will need to run the CIAO tool `sso_freeze` or a similar tool to reproject the events into a coordinate system for which the comet is fixed.