

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13175 - L2 Version 2  
Chandra X-Ray Center

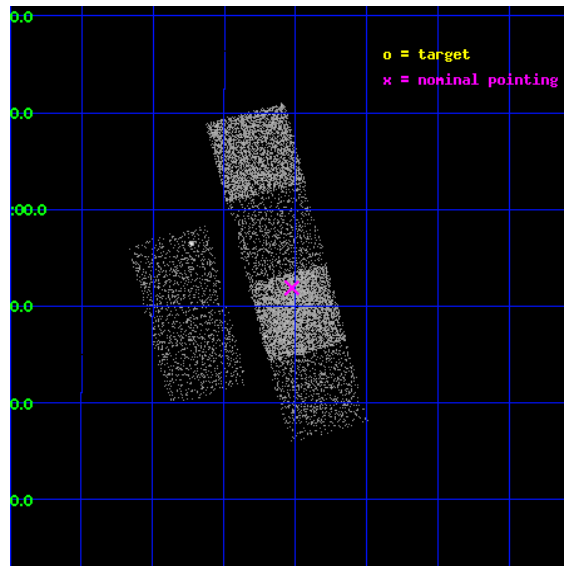
L2 Processing Date : Jul 6 2012

## 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

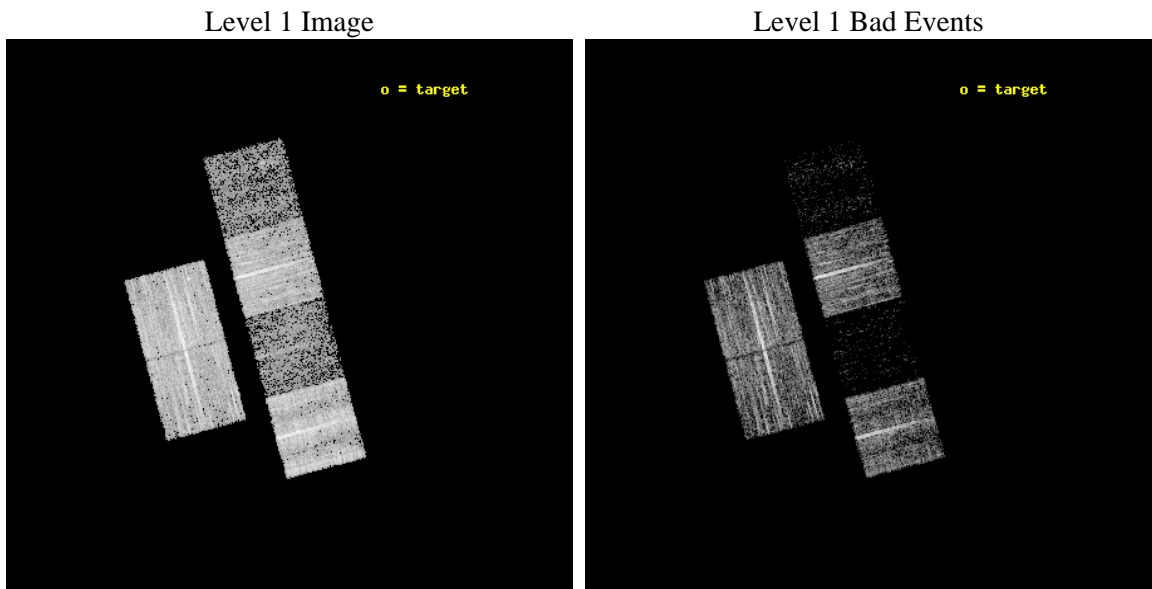
seq_num	100089	Sequence number
obs_id	13175	Observation id
title	Comet 103P/Hartley 2 During the EPOXI Spacecraft Encounter	Proposa
observer	Dr. Carey Lisse	Principal investigator
object	103P/Hartley 2	Source name
dtycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	106.306208	Observer's specified target RA [deg]
dec_targ	7.21925	Observer's specified target Dec [deg]
ra_nom	107.75649844802	Nominal RA [deg]
dec_nom	4.865100256573	Nominal Dec [deg]
roll_nom	75.099876838207	Nominal Roll [deg]
revision	2	Processing version of data
ontime	6684.7999751568	Sum of GTIs [s]
lvertime	6600.153012768	Livetime [s]
ontime2	6684.7999751568	Sum of GTIs [s]
ontime3	6684.7999751568	Sum of GTIs [s]
ontime5	6684.7999751568	Sum of GTIs [s]
ontime6	6684.7999751568	Sum of GTIs [s]
ontime7	6684.7999751568	Sum of GTIs [s]
ontime8	6684.7999751568	Sum of GTIs [s]
l2events	13657	Number of level 2 events



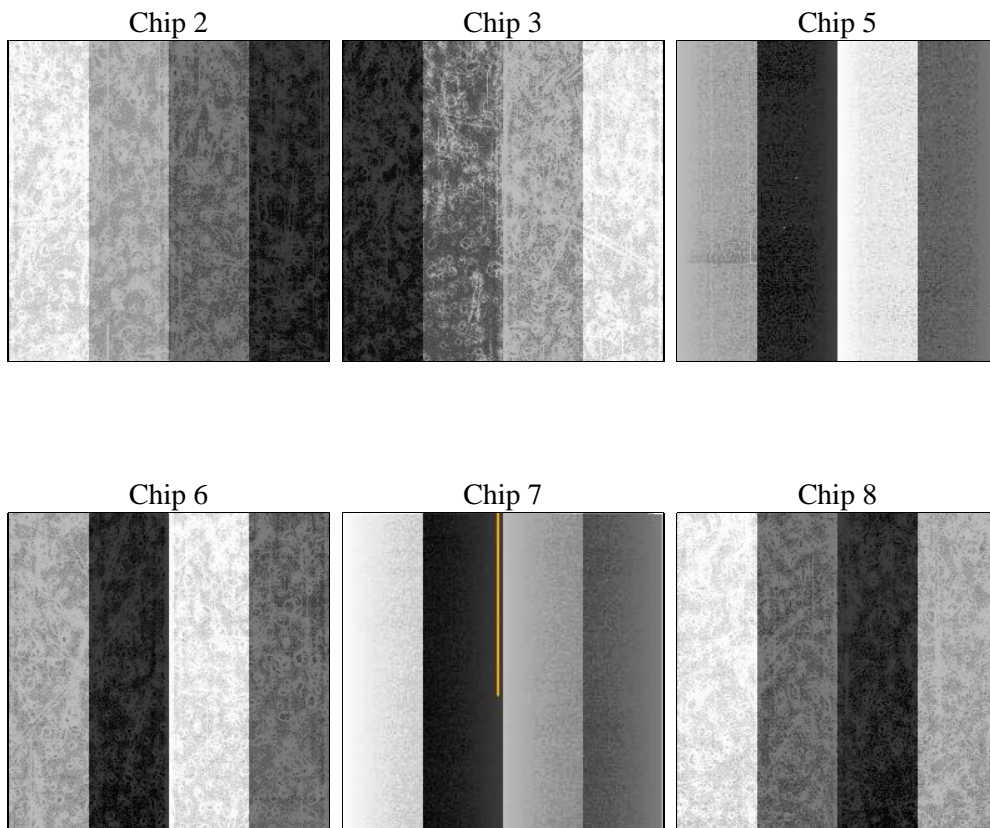
## 2 OBI

### 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	6684.7999751568	Sum of GTIs [s]
caldbver	4.5.0	&#160	ontime2	6684.7999751568	Sum of GTIs [s]
date	2012-07-06T12:24:15	Date and time of file creation	ontime3	6684.7999751568	Sum of GTIs [s]
revision	2	Processing version of data	ontime5	6684.7999751568	Sum of GTIs [s]
			ontime6	6684.7999751568	Sum of GTIs [s]
			ontime7	6684.7999751568	Sum of GTIs [s]
			ontime8	6684.7999751568	Sum of GTIs [s]
			l1events	153807	Number of level 1 events

### 2.1.4 Events

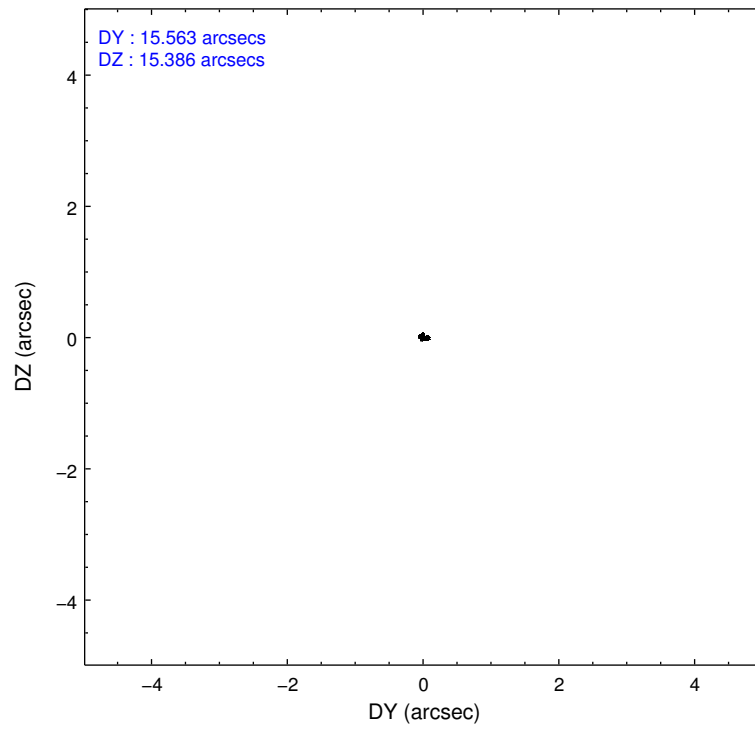
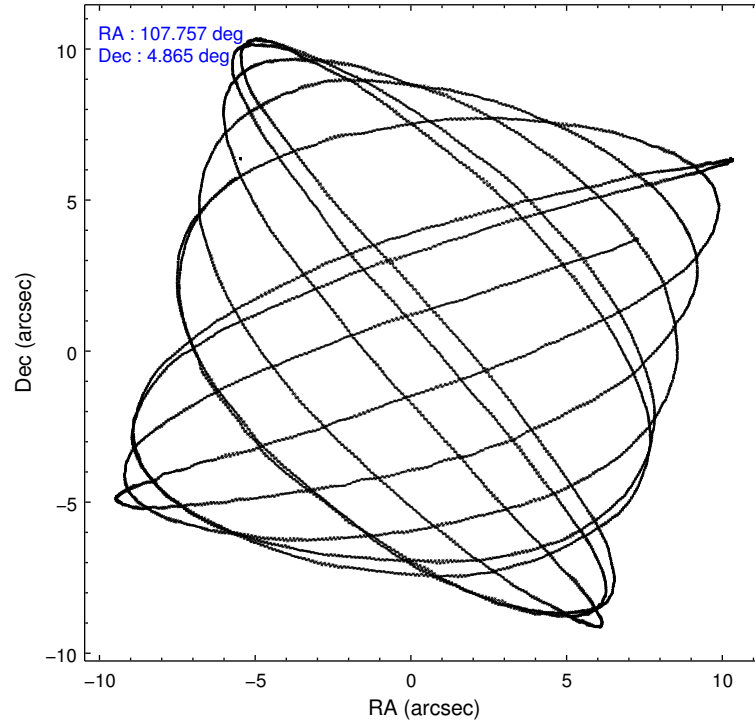
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	37255	31188	7446	31266	7900	38752
rejected events	35526	30142	2883	29739	1800	27071
rejected %	95%	96%	38%	95%	22%	69%

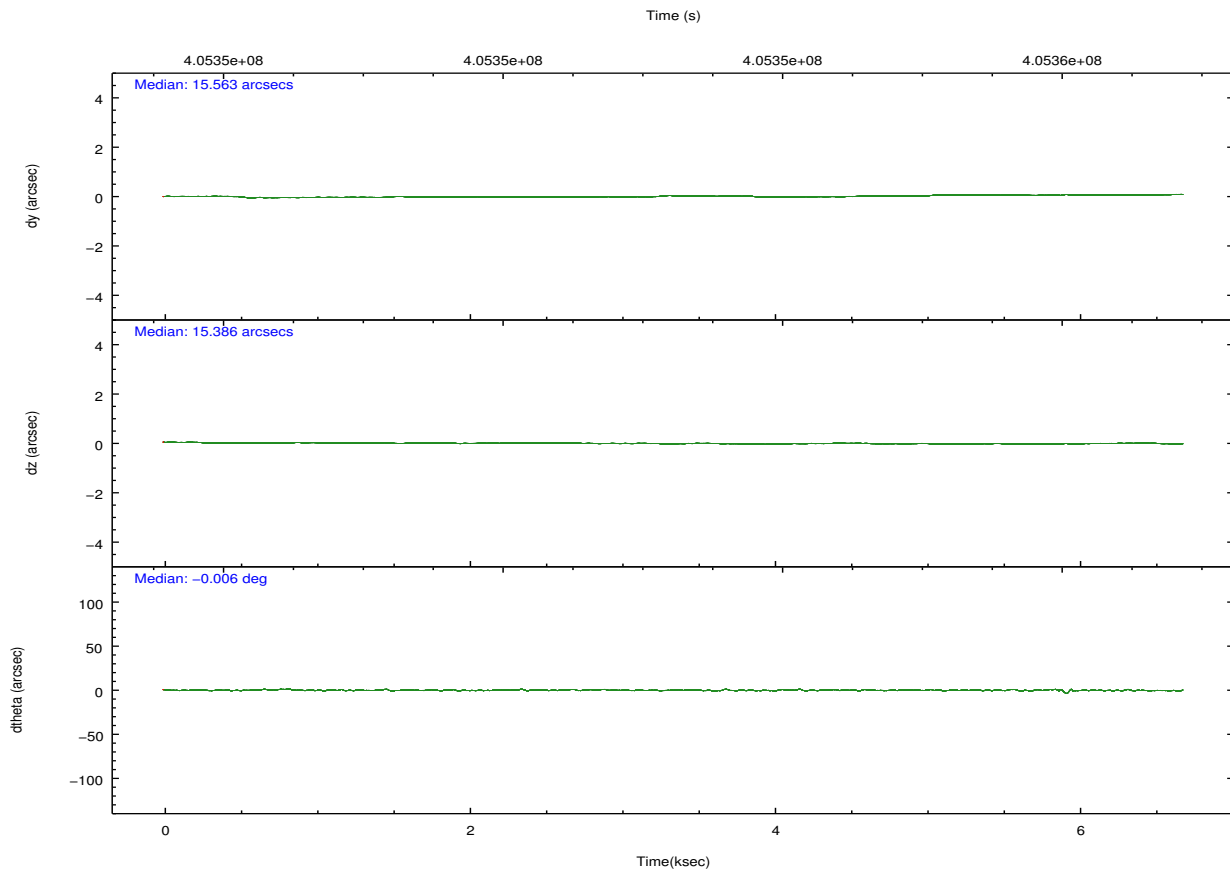
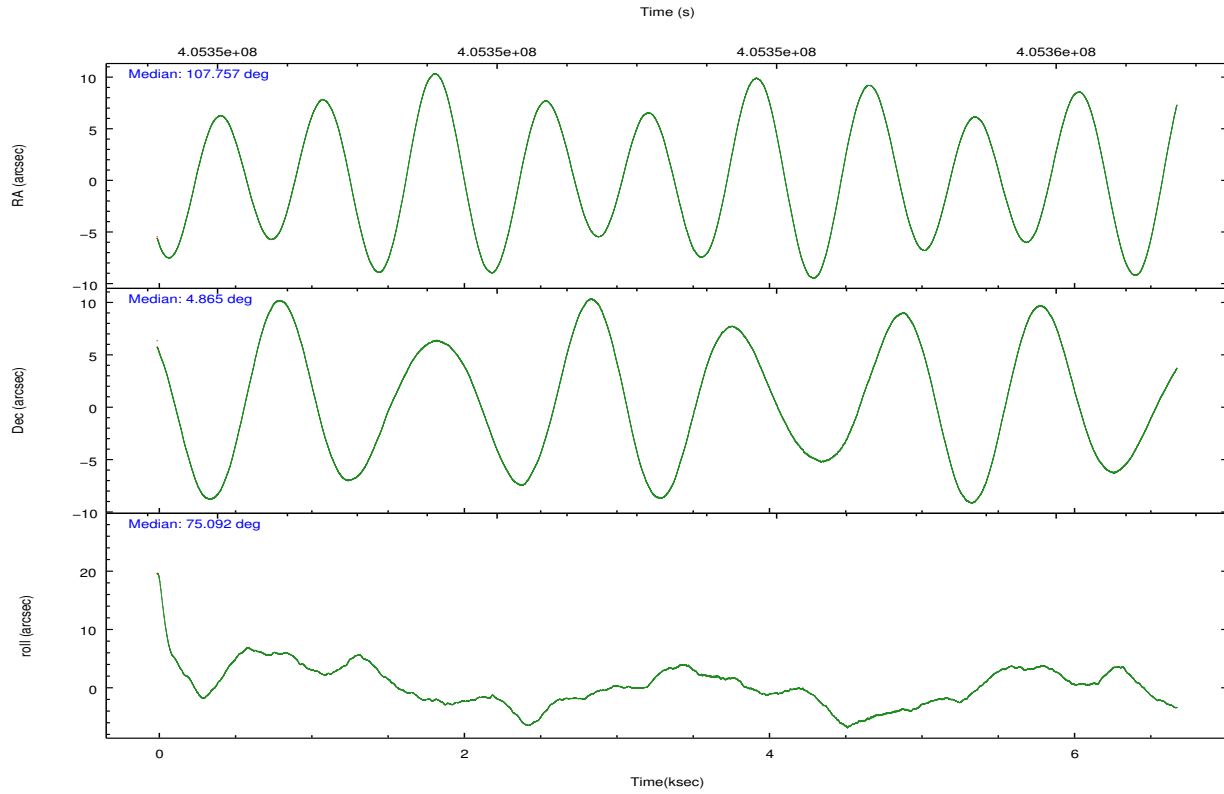
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	842	515	1449	828	2473	3594
	2%	1%	19%	2%	31%	9%
grade 1 events	10	10	109	15	57	31
	0%	0%	1%	0%	0%	0%
grade 2 events	431	141	1844	329	1914	2896
	1%	0%	24%	1%	24%	7%
grade 3 events	210	173	508	187	706	1394
	0%	0%	6%	0%	8%	3%
grade 4 events	208	172	490	184	700	1373
	0%	0%	6%	0%	8%	3%
grade 5 events	56	44	429	24	220	229
	0%	0%	5%	0%	2%	0%
grade 6 events	144	96	507	82	587	3117
	0%	0%	6%	0%	7%	8%
grade 7 events	35354	30037	2110	29617	1243	26118
	94%	96%	28%	94%	15%	67%

## 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	107.764085	107.7564984480182	Subarray requested	NONE	NONE
[deg] Pointing Dec	4.838872	4.865100256572962	Alternating exposures requested	N	N
[deg] Pointing Roll	74.942582	75.0998768382066	[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)	405350060.184000	405349684.48358			
Observation start date	2010-11-05T13:13:14	2010-11-05T13:08:04			
[s] Observation end time (MET)	405356560.184000	405356694.45894			
Observation end date	2010-11-05T15:01:34	2010-11-05T15:04:54			
Read mode	TIMED	TIMED			

## 2.3 Aspect



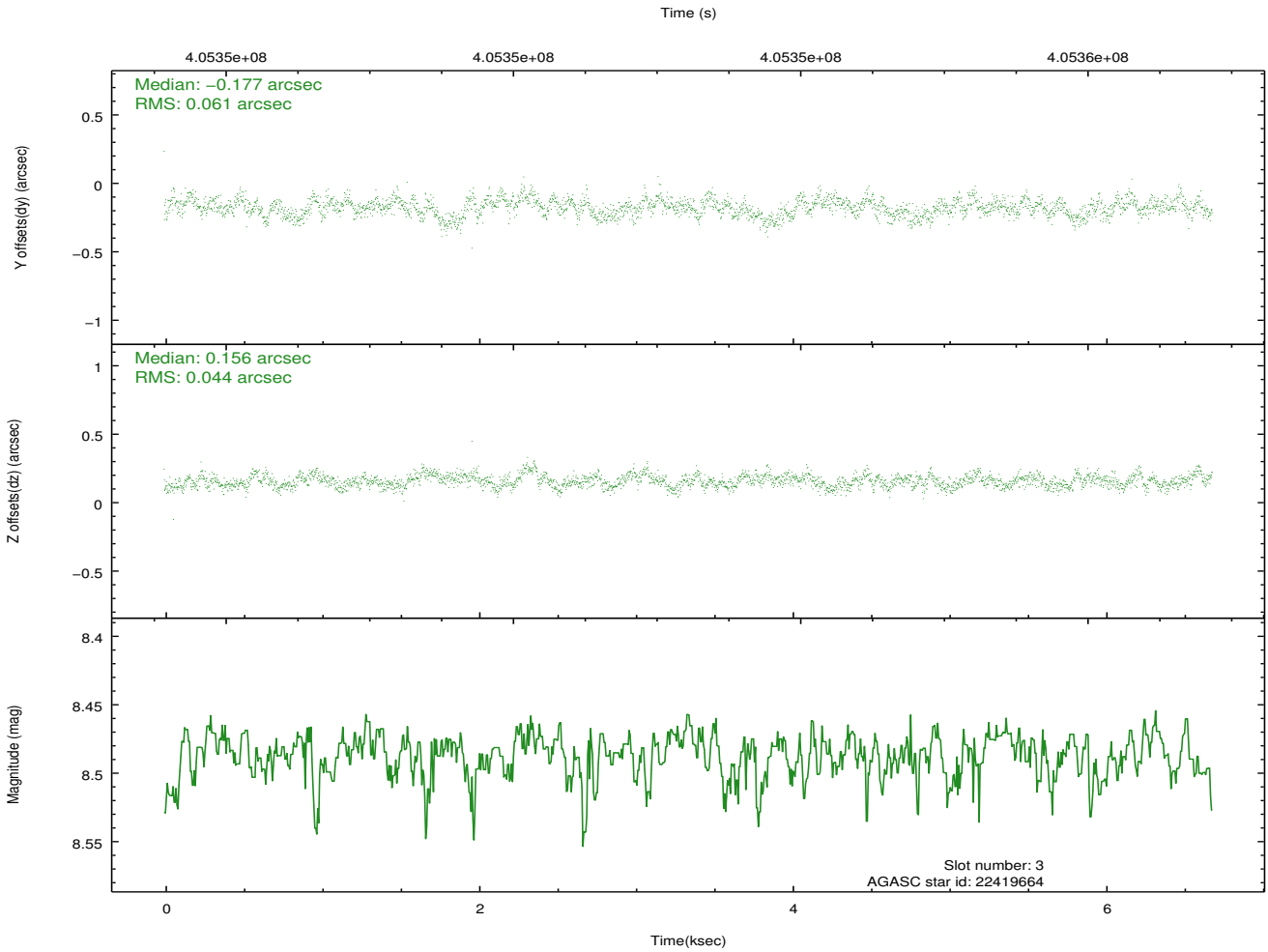
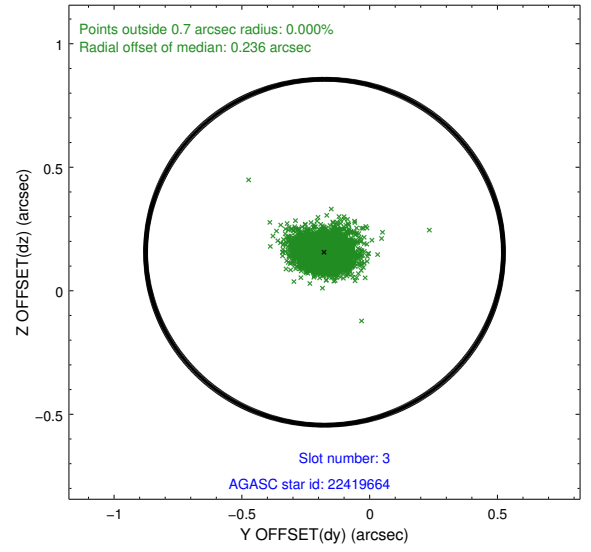
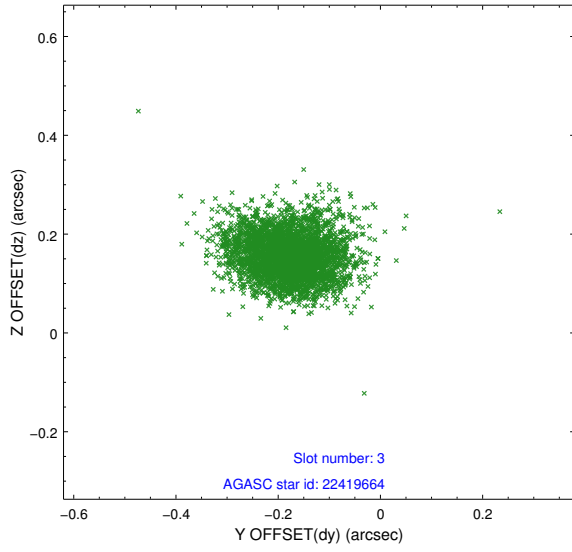


### Slot Statistics

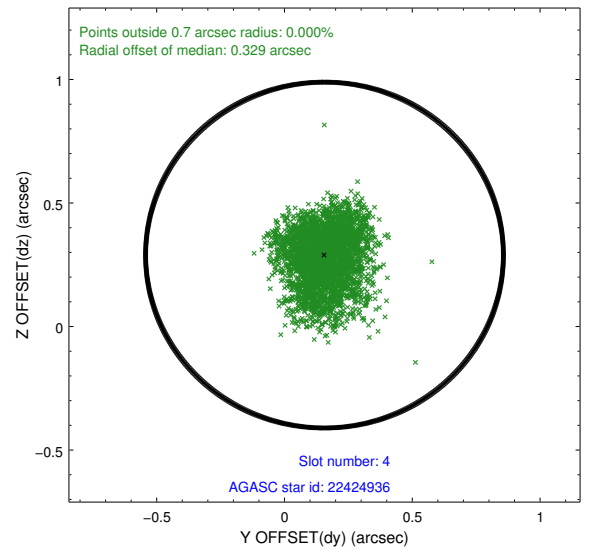
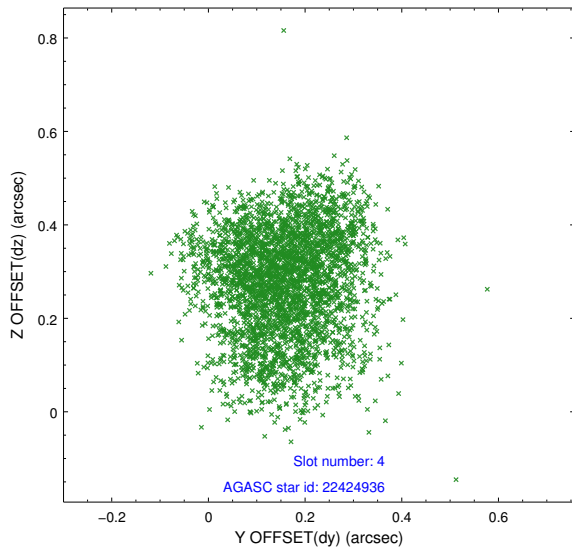
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.00	1631	0.042	-0.044	0.006	0.010	0.000000	0.000000	927.55	-1732.44
1	FID	ACIS-S-5	7.05	1631	-0.101	0.022	0.006	0.010	0.000000	0.000000	-1821.14	164.24
2	FID	ACIS-S-6	7.16	1631	0.037	0.034	0.007	0.011	0.000000	0.000000	392.11	809.23
3	GUIDE	22419664	8.49	3262	-0.177	0.156	0.078	0.131	108.333981	5.243670	1939.62	-1593.71
4	GUIDE	22424936	9.44	3187	0.157	0.289	0.155	0.242	108.282433	4.343230	-1237.45	-2260.54
5	GUIDE	22443192	8.42	3262	0.311	-0.135	0.085	0.142	107.137472	4.393125	-2132.58	1754.33
6	GUIDE	22422144	9.67	3260	-0.316	-0.415	0.147	0.234	107.410911	5.399265	1619.17	1746.92
7	GUIDE	22428768	9.82	3256	0.044	0.128	0.153	0.245	108.544801	5.157282	1837.19	-2404.42

## 2.4 Star Slots

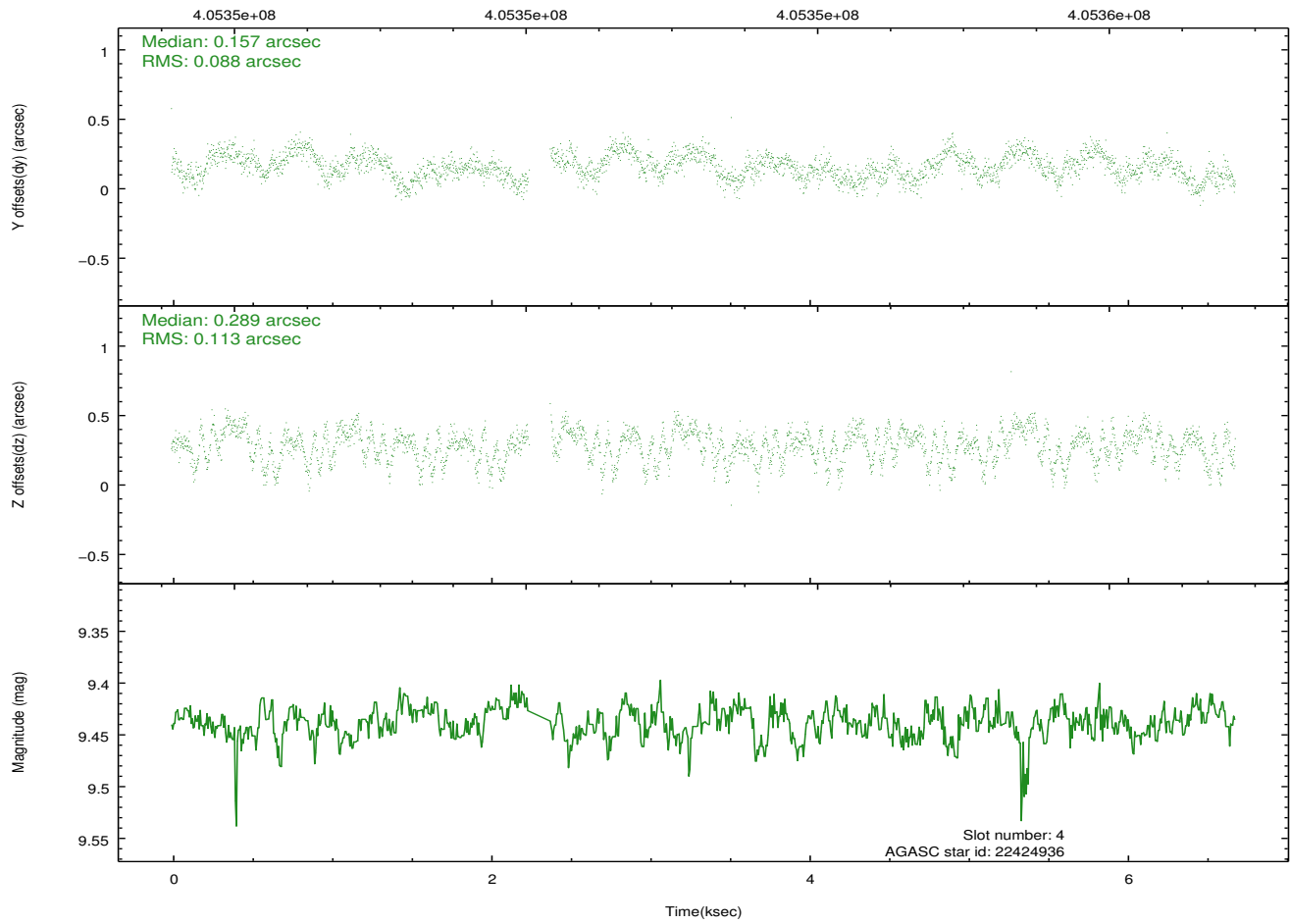
### 2.4.1 Slot 3



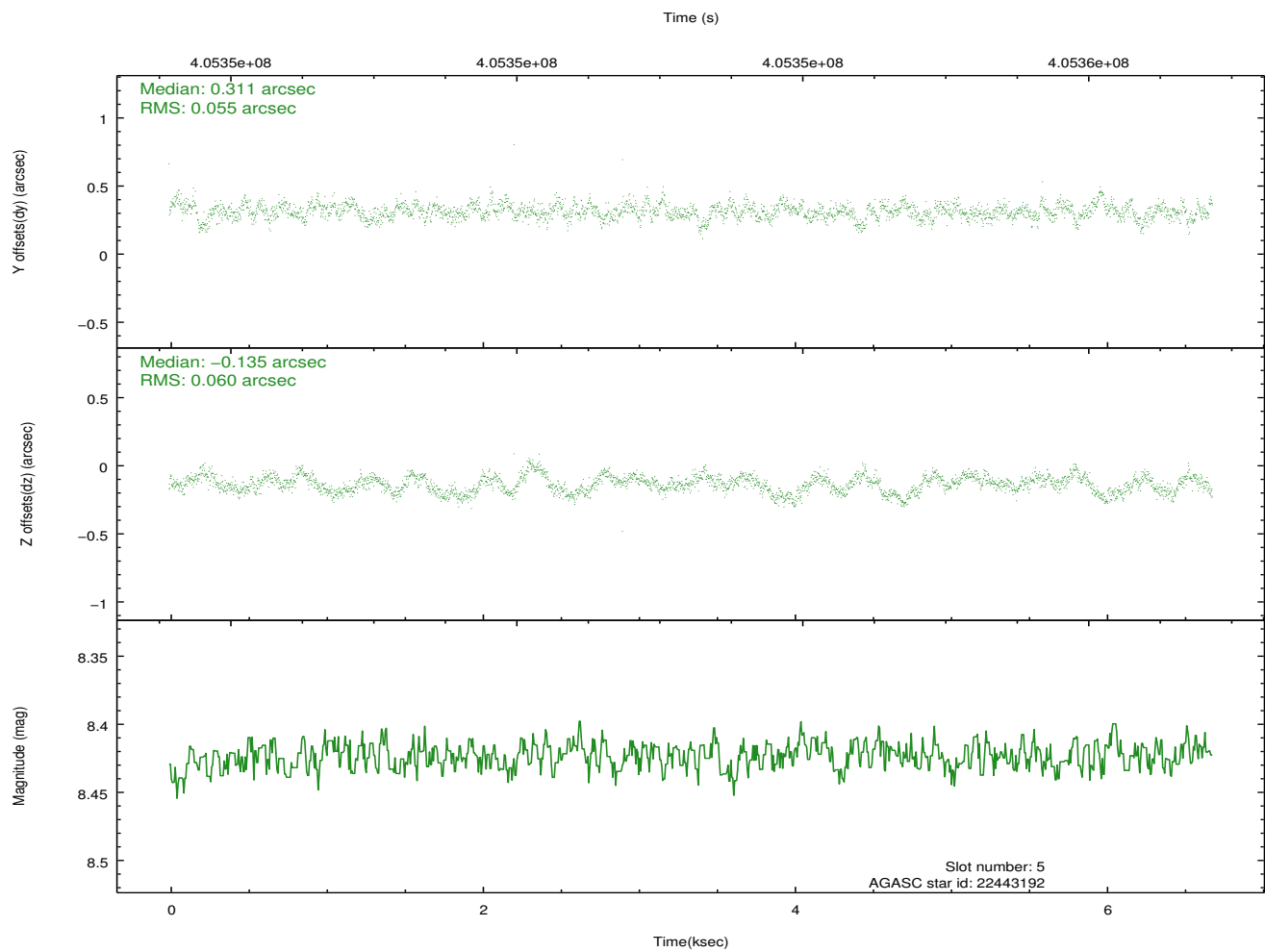
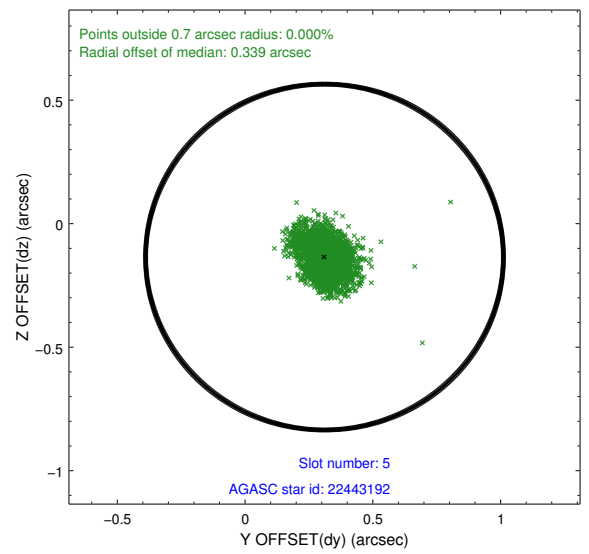
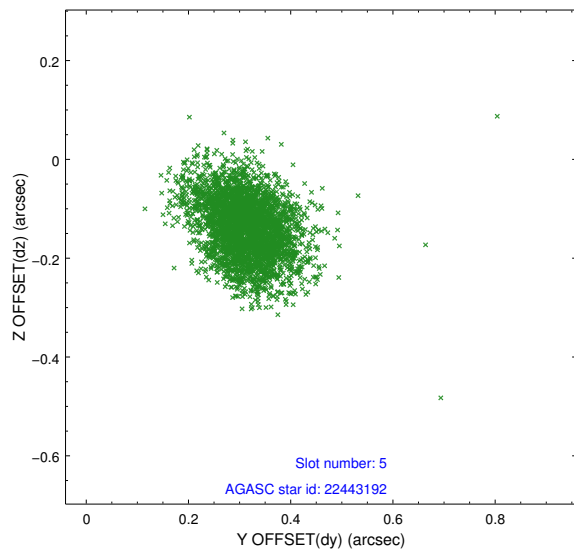
## 2.4.2 Slot 4



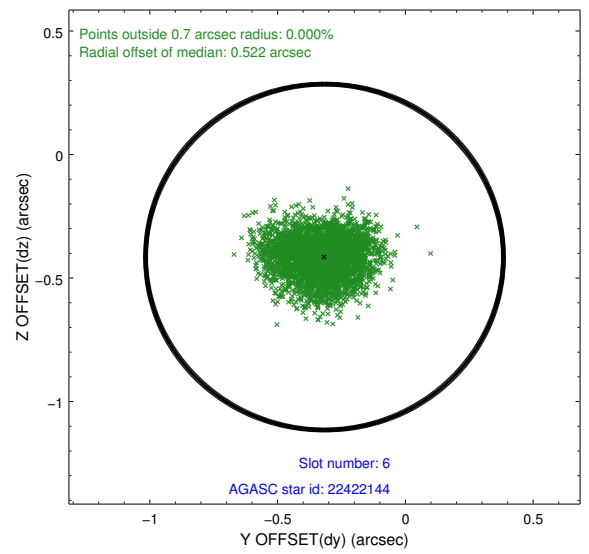
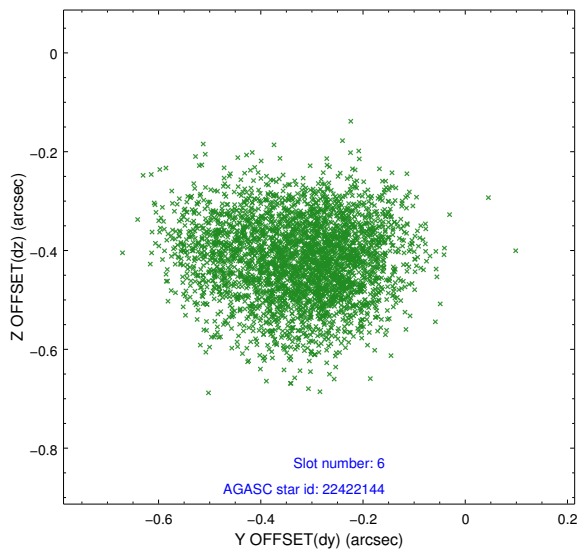
Time (s)



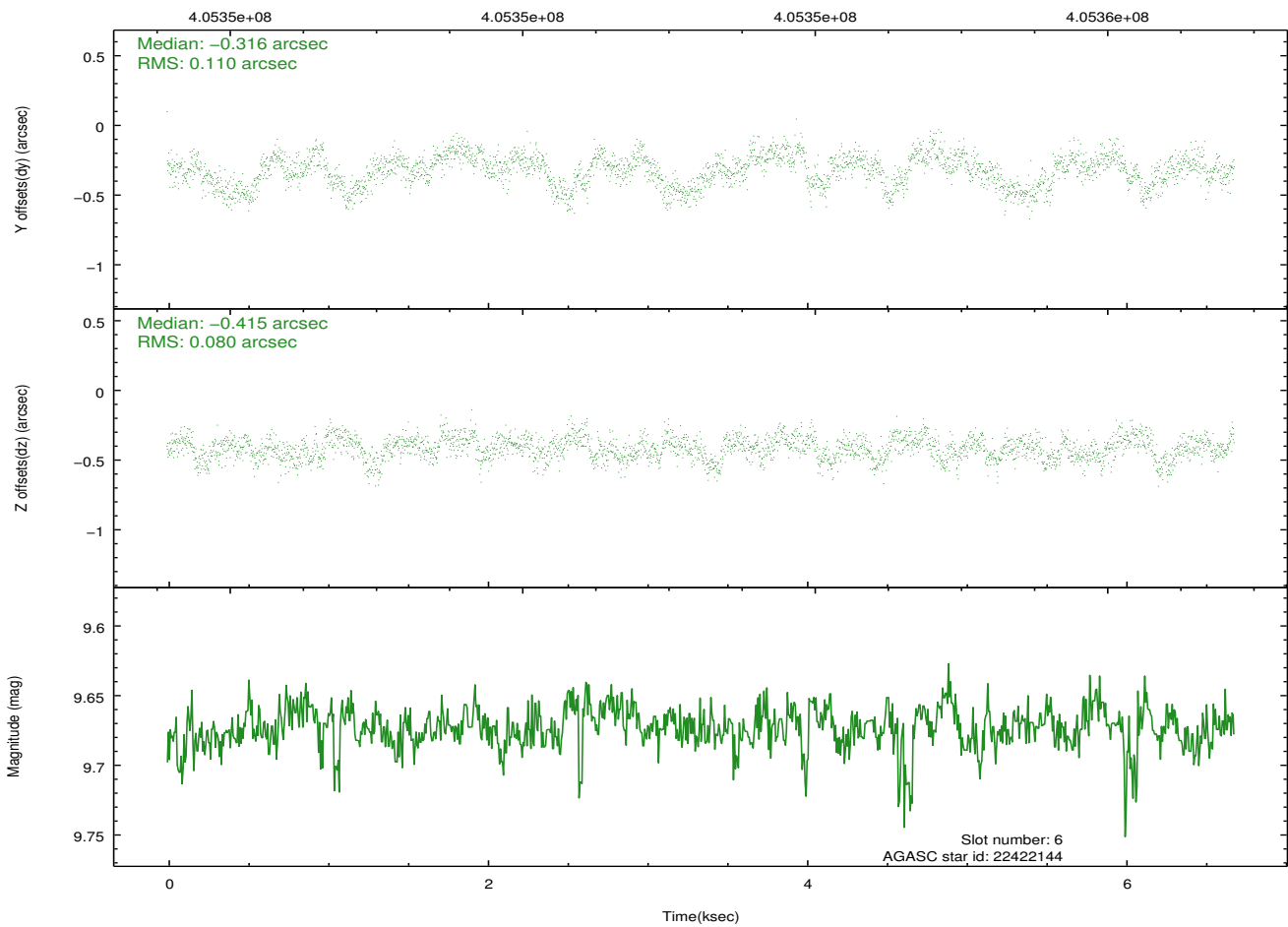
### 2.4.3 Slot 5



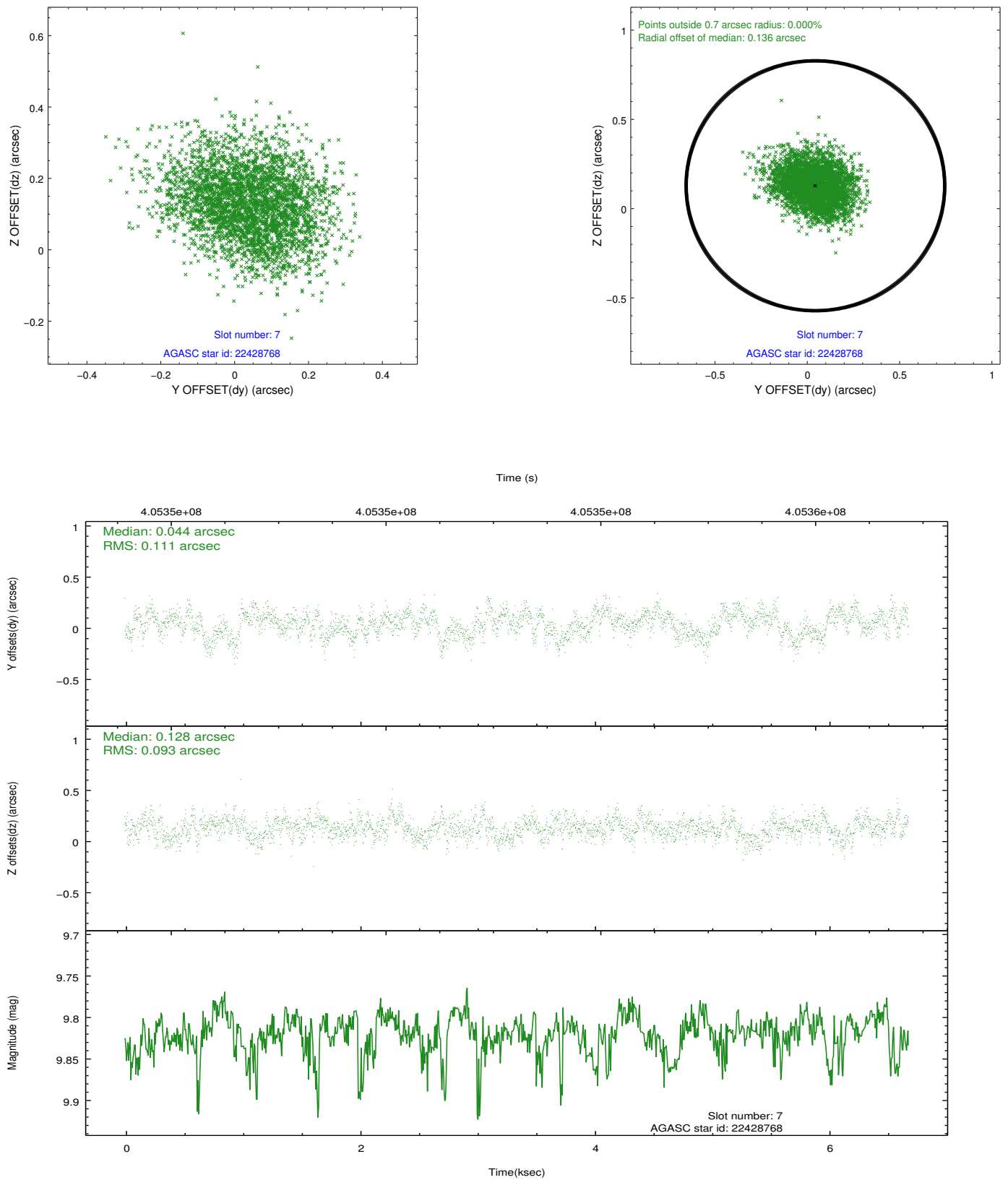
## 2.4.4 Slot 6



Time (s)

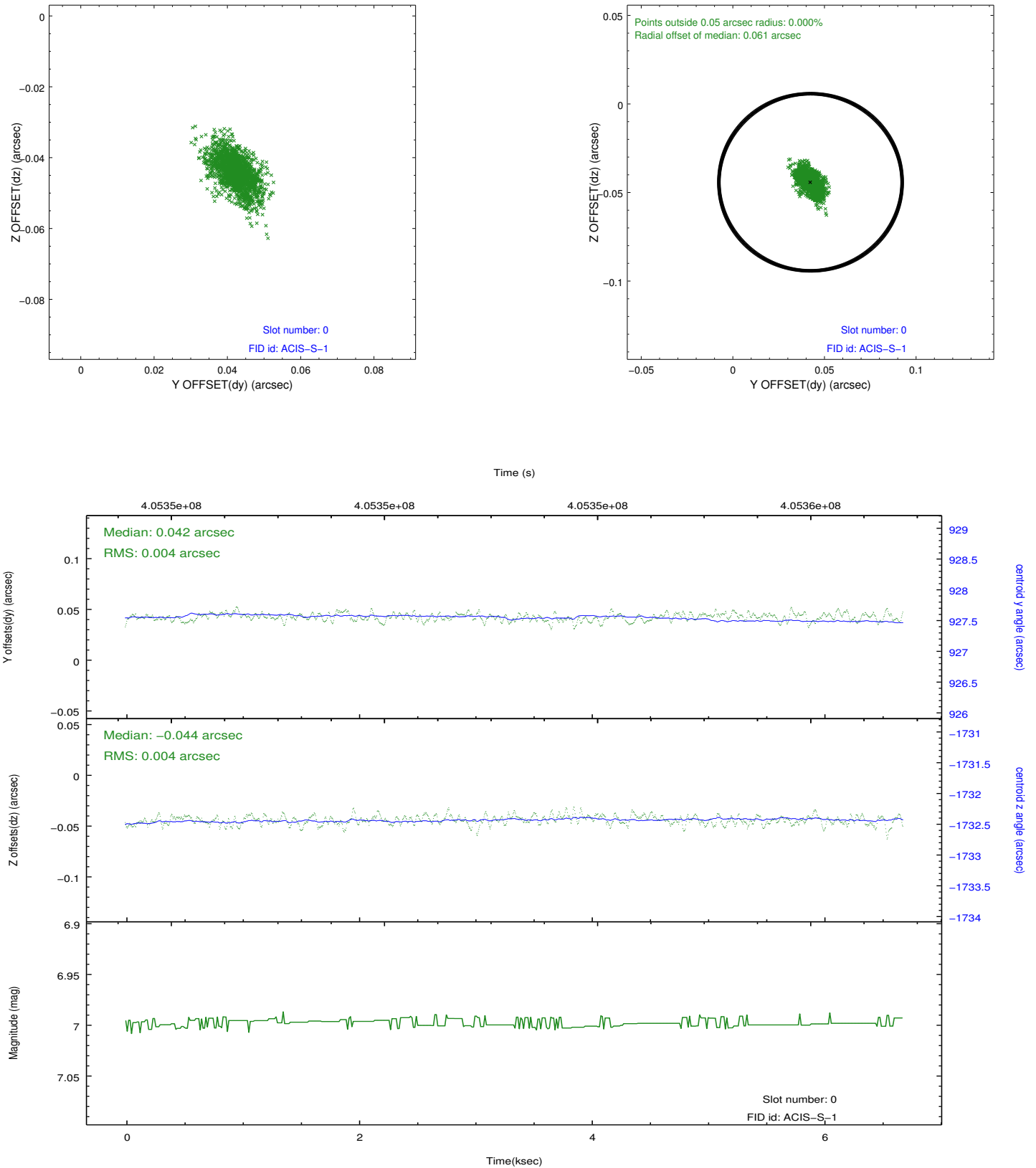


## 2.4.5 Slot 7

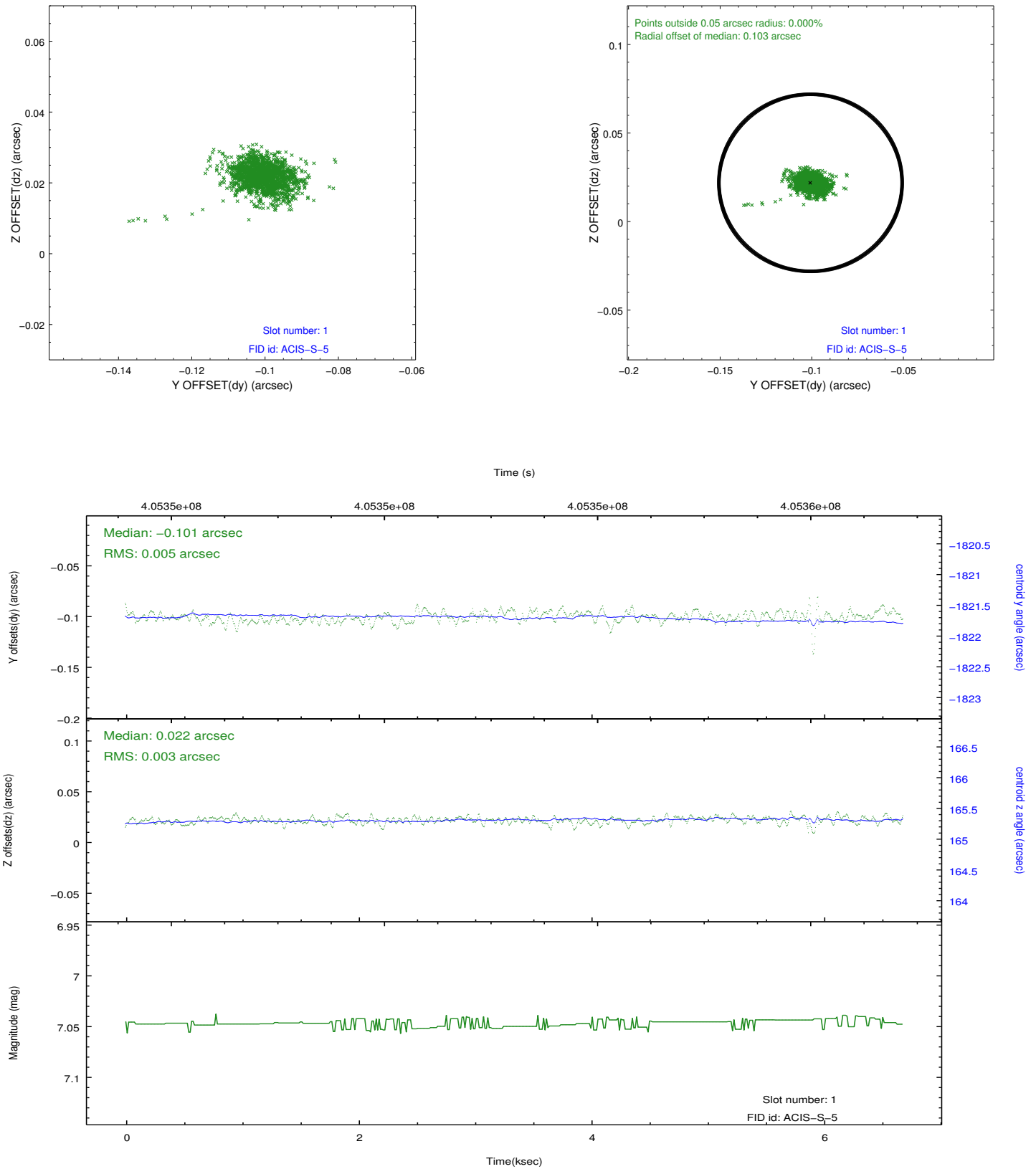


## 2.5 FID Slots

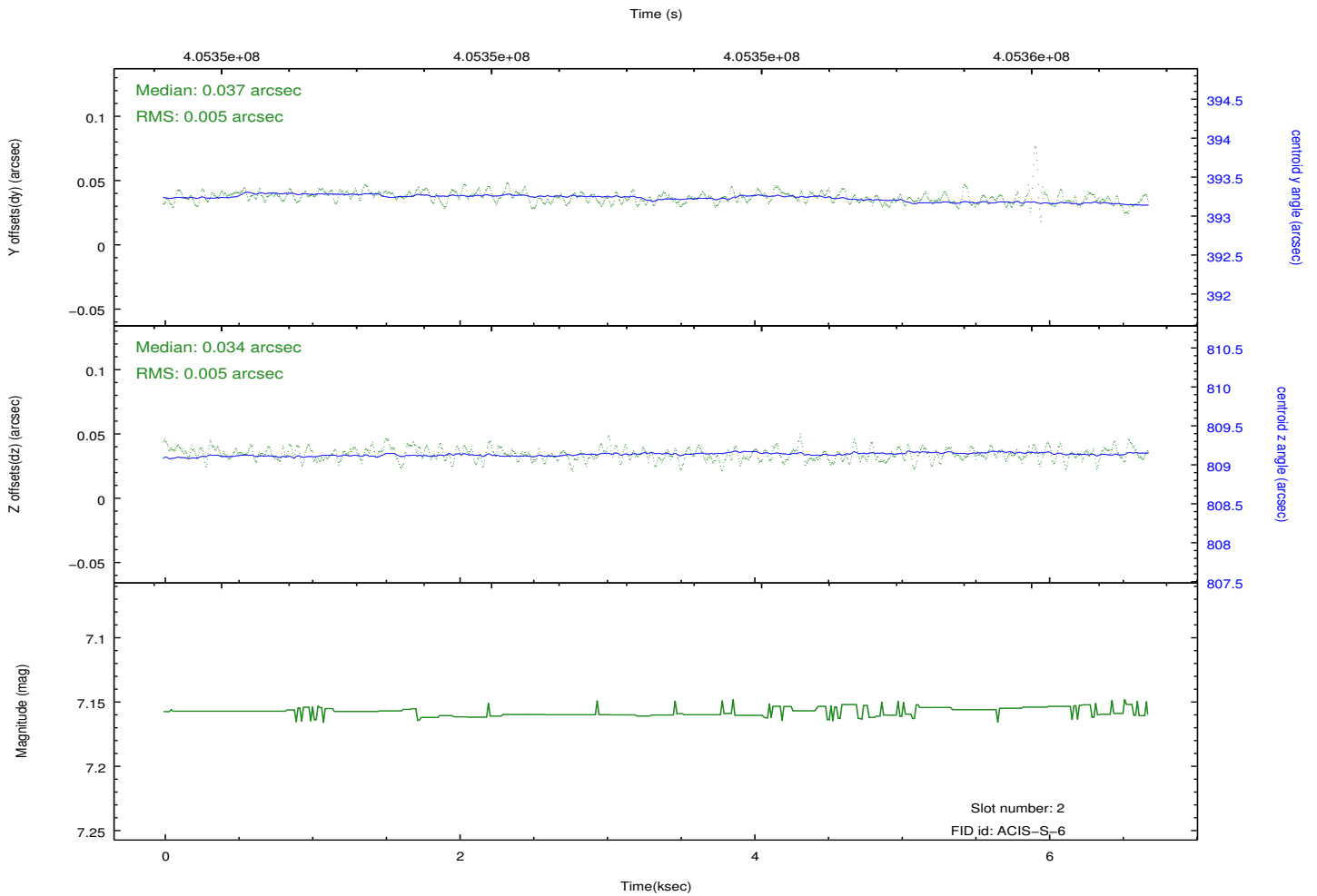
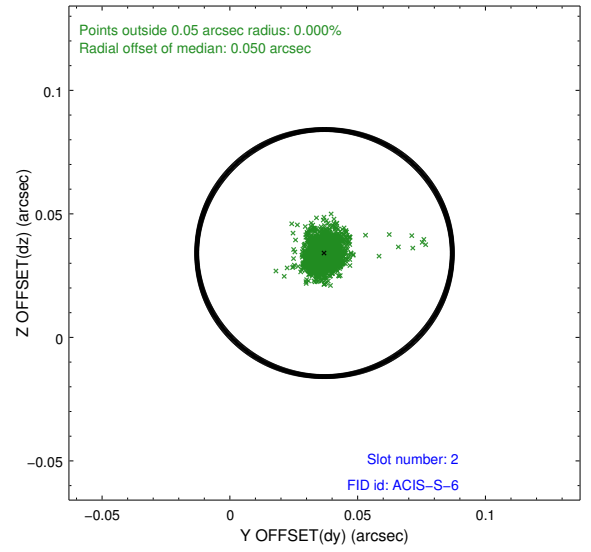
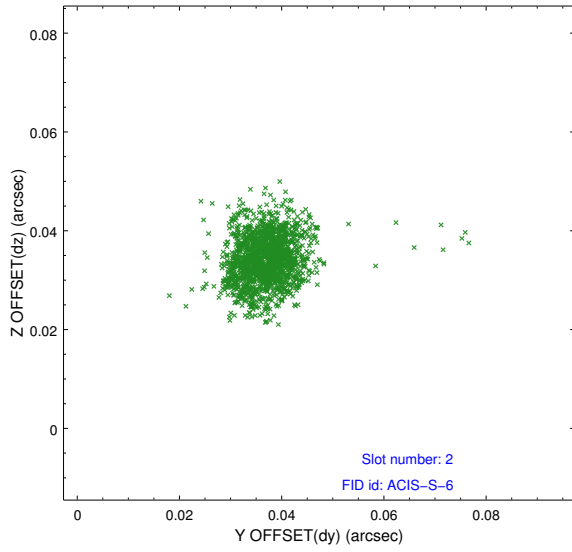
### 2.5.1 Slot 0



## 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	6.6847999751568

## 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 another similar tool to reproject the events to a coordinate system for which the comet is fixed during the observation.