

# V&V Reference Report

## L2 ASCDS Version : 7.6.11.1

Observation 963 - L2 Version 3  
Chandra X-Ray Center

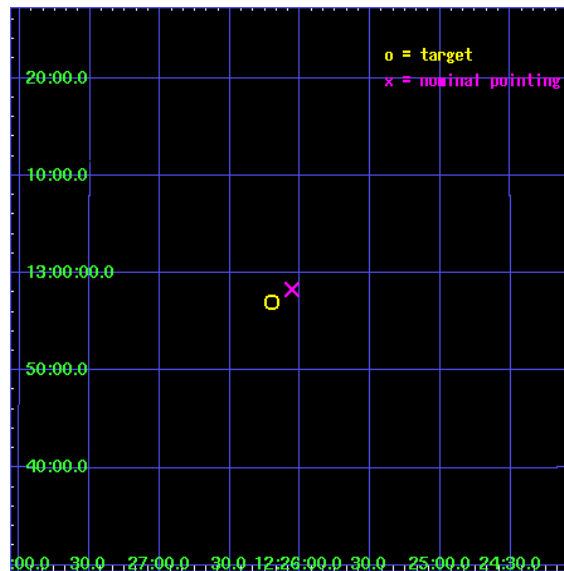
L2 Processing Date : Sep 6 2007

## 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
<b>3</b>	<b>Point Sources</b>	<b>15</b>
<b>A</b>	<b>Summary</b>	<b>16</b>
A.1	Status . . . . .	16
A.2	Comments . . . . .	16

# 1 Front

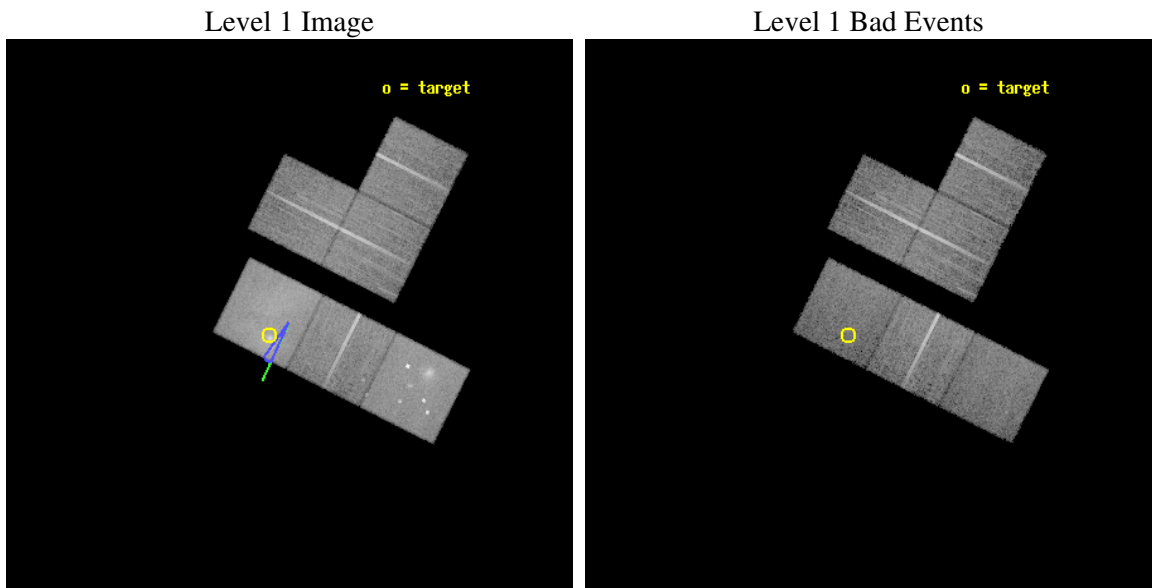
seq_num	600113
obs_id	963
title	EARLY TYPE GALAXIES
observer	Dr. Stephen Murray
object	NGC 4406
dtcycle	0
cycle	P
ra_targ	186.55
dec_targ	12.95
ra_nom	186.51460787703
dec_nom	12.972019149638
roll_nom	206.68302311467
revision	3
ontime	0.0
livetime	0.0
ontime0	0.0
ontime2	0.0
ontime3	0.0
ontime5	0.0
ontime6	0.0
ontime7	0.0
l2events	0



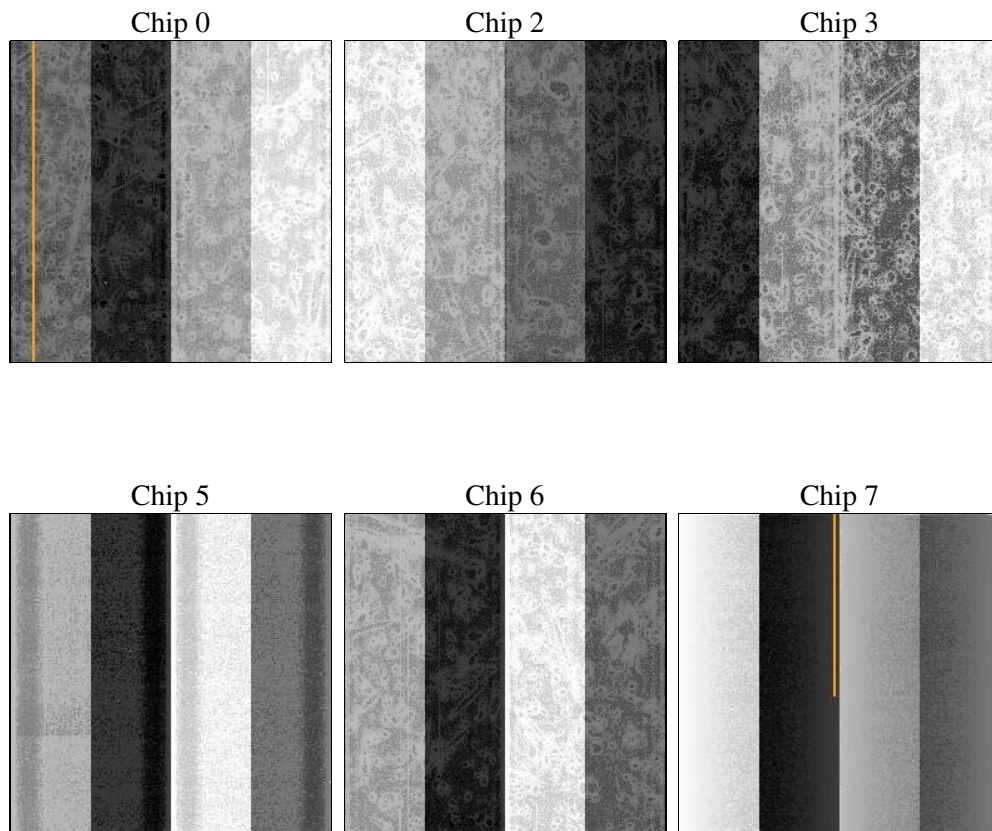
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1
ascdsver	7.6.11.1
caldsver	3.4.0
date	2007-09-07T01:30:39
revision	3

sched_exp_time	14500.000000
ontime	0.0
ontime0	13741.84182328
ontime2	13745.082803443
ontime3	13745.082803443
ontime5	13745.08283338
ontime6	13745.082803443
ontime7	13741.84182331
l1events	719407

### 2.1.4 Events

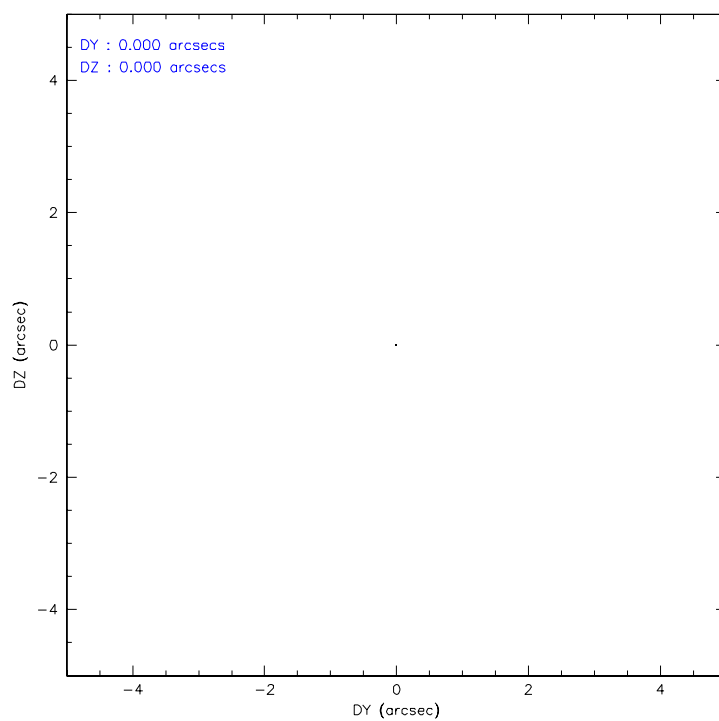
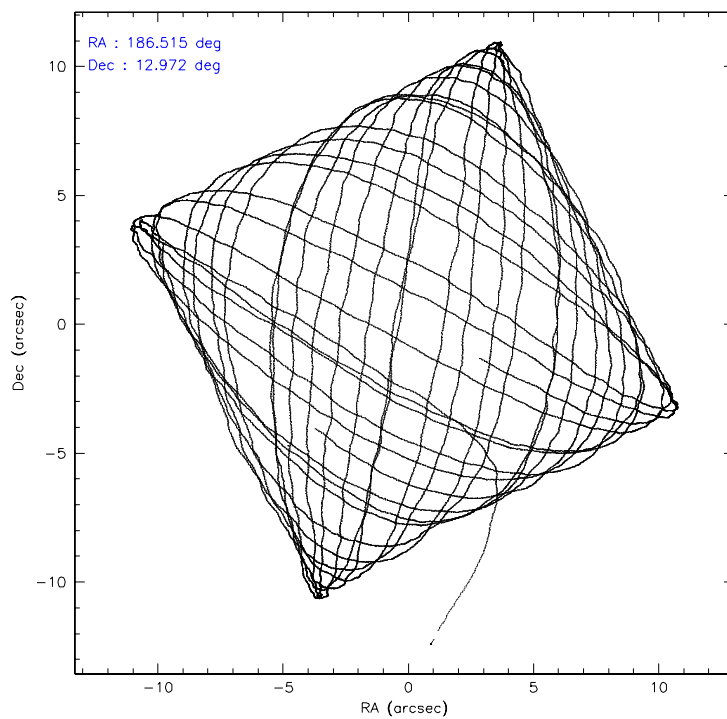
	ccd 0	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
level 1 events	95446	104050	99928	142110	111413	166460
rejected events	79322	85477	84130	65871	88094	63337
rejected %	83%	82%	84%	46%	79%	38%

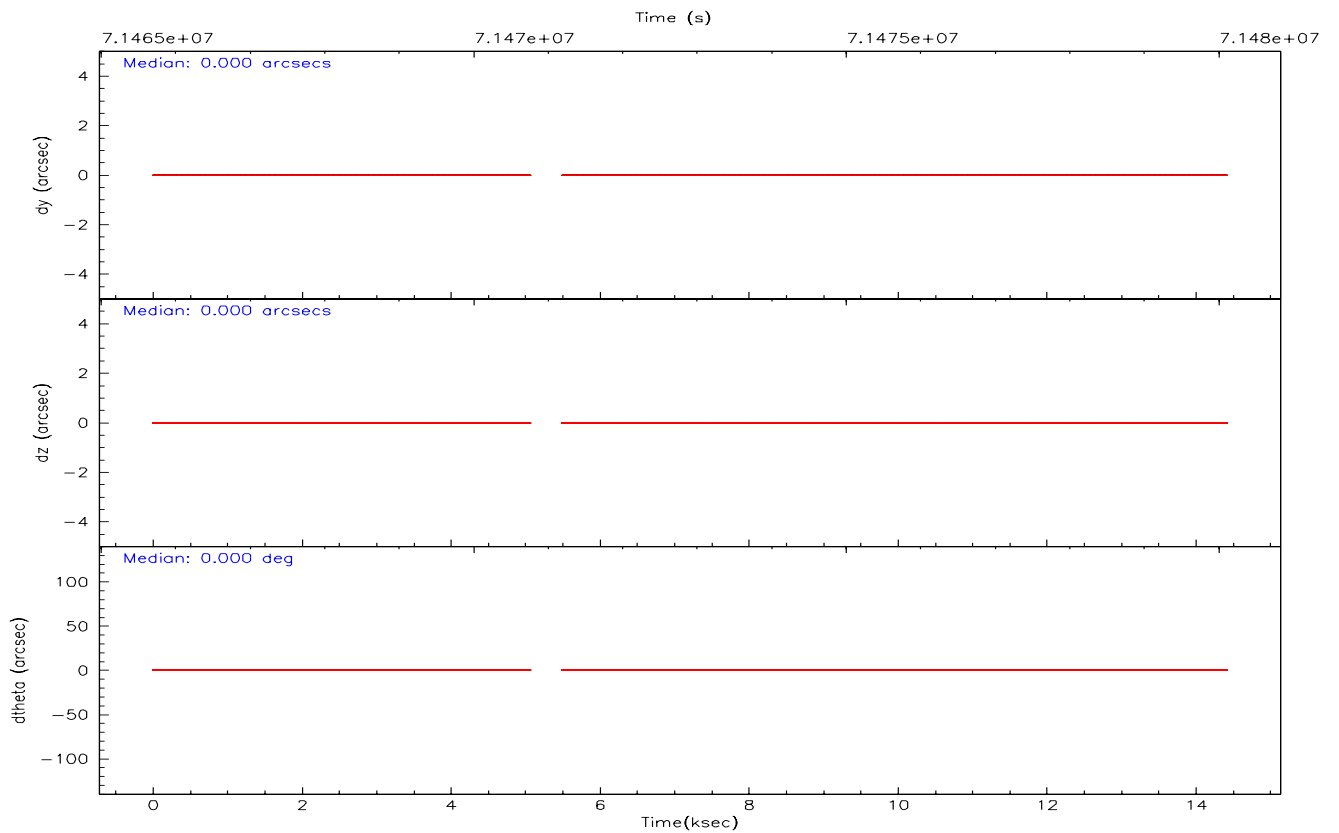
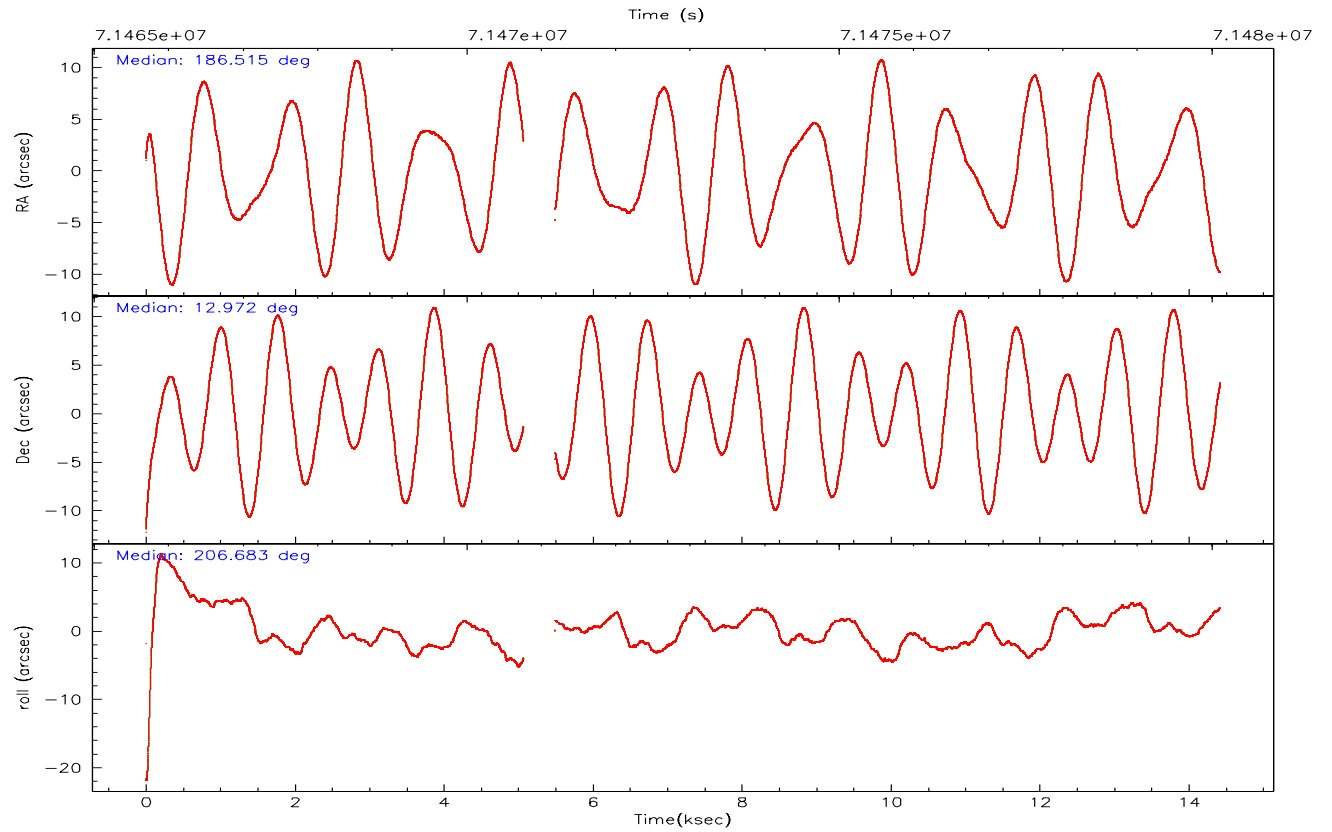
	ccd 0	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7
grade 0 events	8052	10657	8050	16715	14537	22999
	8%	10%	8%	11%	13%	13%
grade 1 events	57	59	54	204	85	110
	0%	0%	0%	0%	0%	0%
grade 2 events	3385	3446	3295	20486	3798	24161
	3%	3%	3%	14%	3%	14%
grade 3 events	1138	1040	1101	4035	1298	10679
	1%	0%	1%	2%	1%	6%
grade 4 events	1123	1140	1082	3944	1296	10811
	1%	1%	1%	2%	1%	6%
grade 5 events	3053	2801	3076	9636	3531	10995
	3%	2%	3%	6%	3%	6%
grade 6 events	2426	2290	2270	31059	2390	34473
	2%	2%	2%	21%	2%	20%
grade 7 events	76212	82617	81000	56031	84478	52232
	79%	79%	81%	39%	75%	31%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-023567	ACIS-023567	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	186.529989	186.5146078770286	Subarray requested	NONE	NONE
Pointing Dec	12.995036	12.9720191496376	Alternating exposures requested	N	N
Pointing Roll	206.522952	206.6830231146672	Primary exposure time	3.200000	3.2
Roll angle	210.000000	210.000000			
Roll tolerance	5.000000	5.000000			
Roll constraint allows 180D rotation	N	N			
SIM focus pos (mm)	-0.684267	-0.6828225247311905			
SIM defocus (mm)	0	0.001444936568705701			
SIM translation stage pos (mm)	-190.132523	-190.1400660498719			
SIM translation stage offset (mm)	0	0.00754346686406393			
Observation start time	71465614.184000	71464967.84524301			
Observation start date	2000-04-07T03:32:30	2000-04-07T03:22:47			
Observation end time	71480114.184000	71480248.545803			
Observation end date	2000-04-07T07:34:10	2000-04-07T07:37:28			
Read mode	TIMED	TIMED			

## 2.3 Aspect





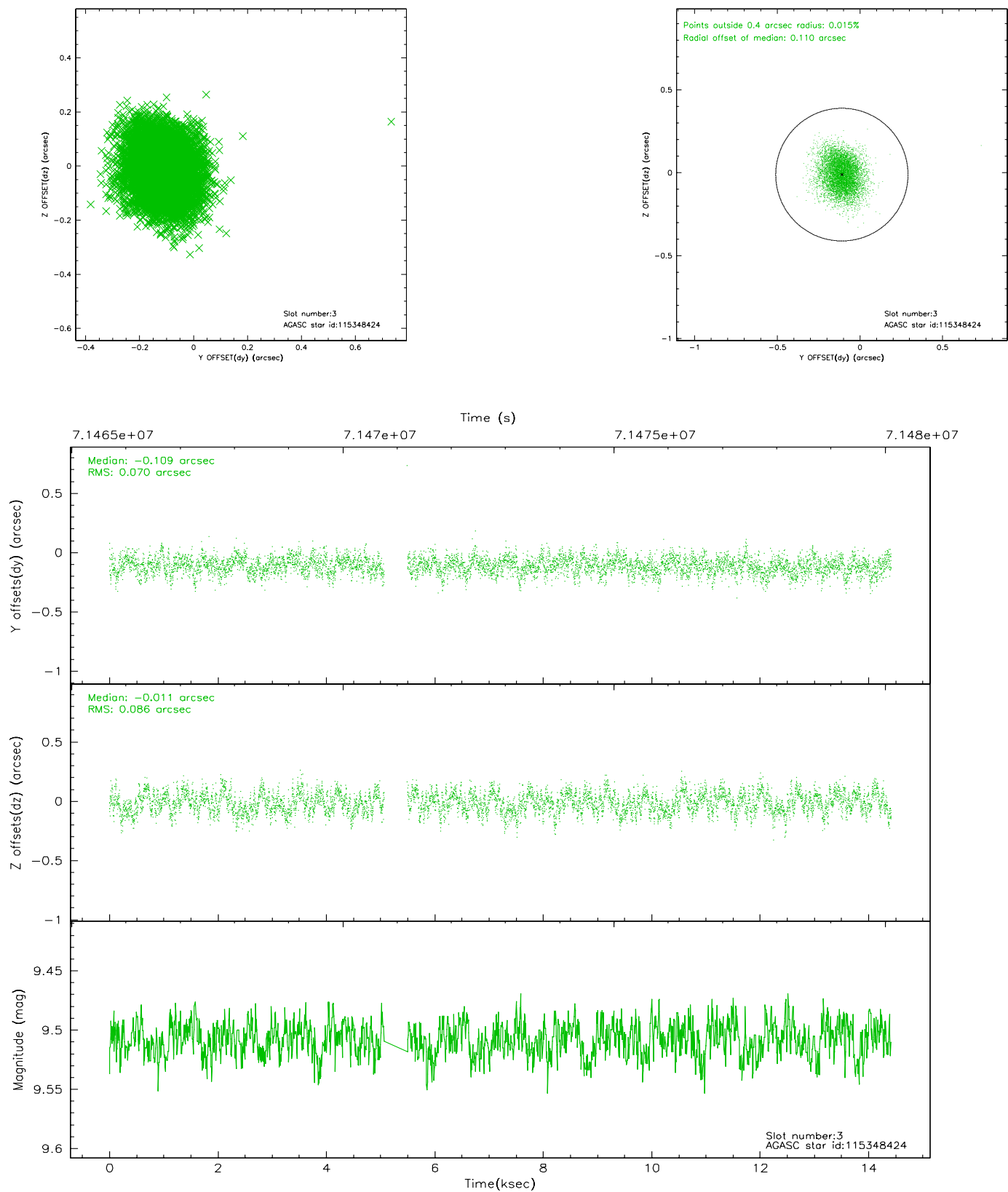
Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	drl	dr2	ra	dec	mean_y	mean_z
0	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
1	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
2	UNUSED		0.00	0	0.000	0.000	0.000	0.000	0.000000	0.000000	0.00	0.00
3	GUIDE	115348424	9.51	6821	-0.109	-0.011	0.118	0.188	187.199498	13.087929	-2250.12	746.41
4	GUIDE	115349744	10.34	6817	0.037	0.053	0.150	0.252	186.878186	12.752529	-703.47	1326.56
5	GUIDE	115215984	9.99	6817	0.070	-0.023	0.108	0.175	186.134733	12.875031	1434.82	-233.66
6	GUIDE	115215968	10.19	6818	0.083	-0.026	0.116	0.190	186.327588	13.159527	371.83	-846.98
7	GUIDE	115347400	10.23	6823	-0.074	0.009	0.127	0.207	186.994146	13.445598	-2177.89	-727.03

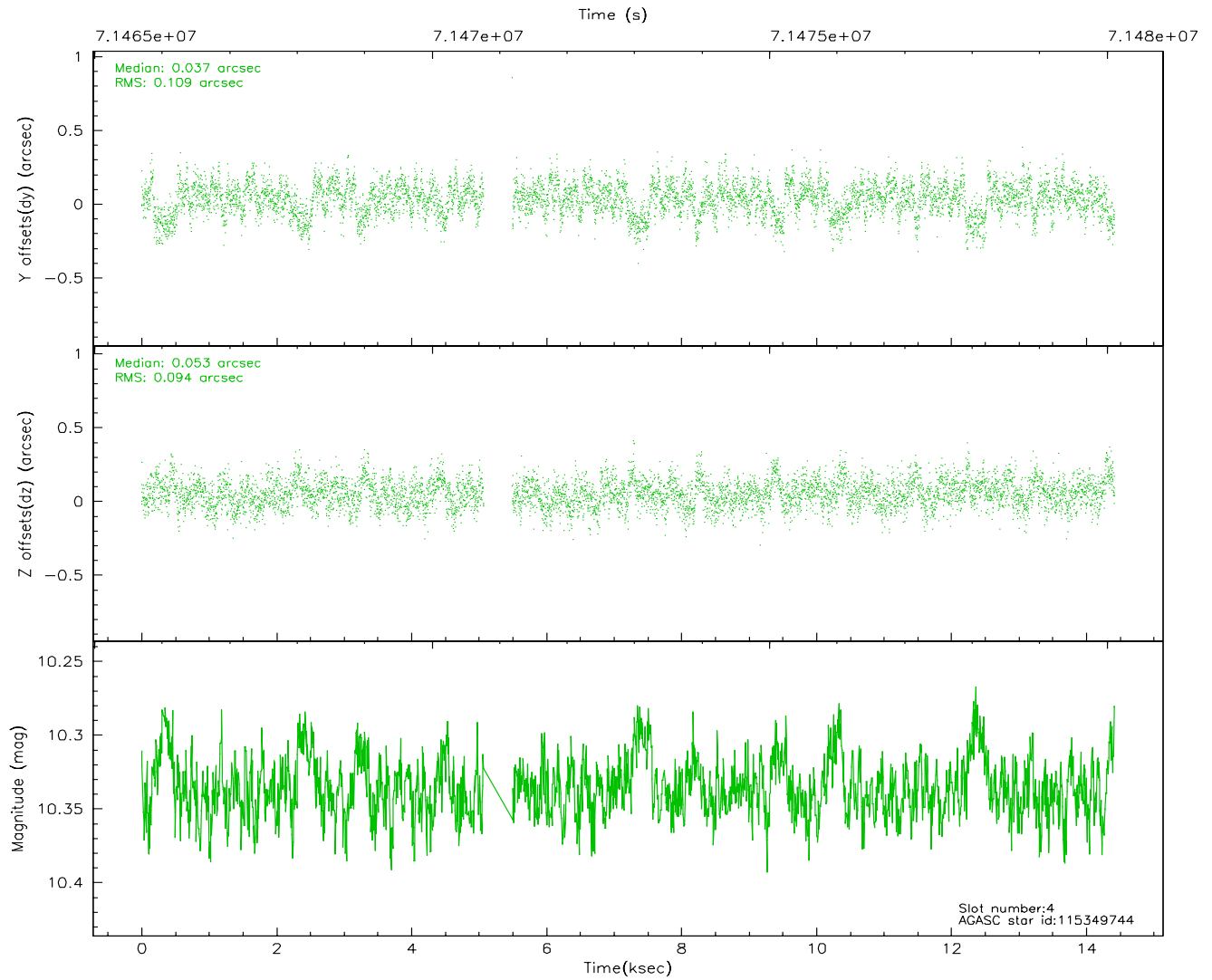
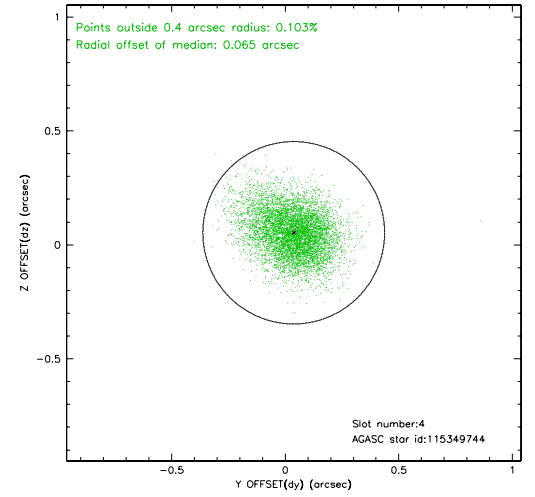
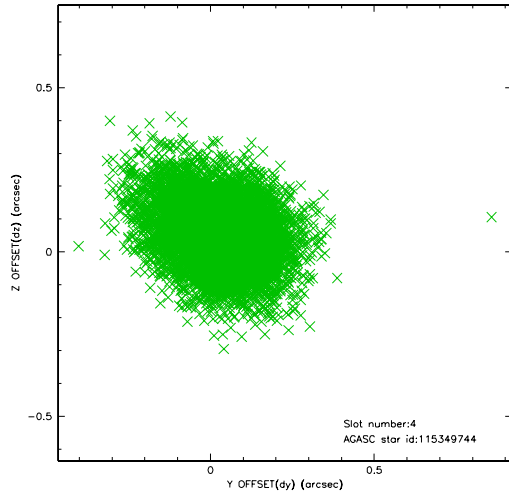


## 2.4 Star Slots

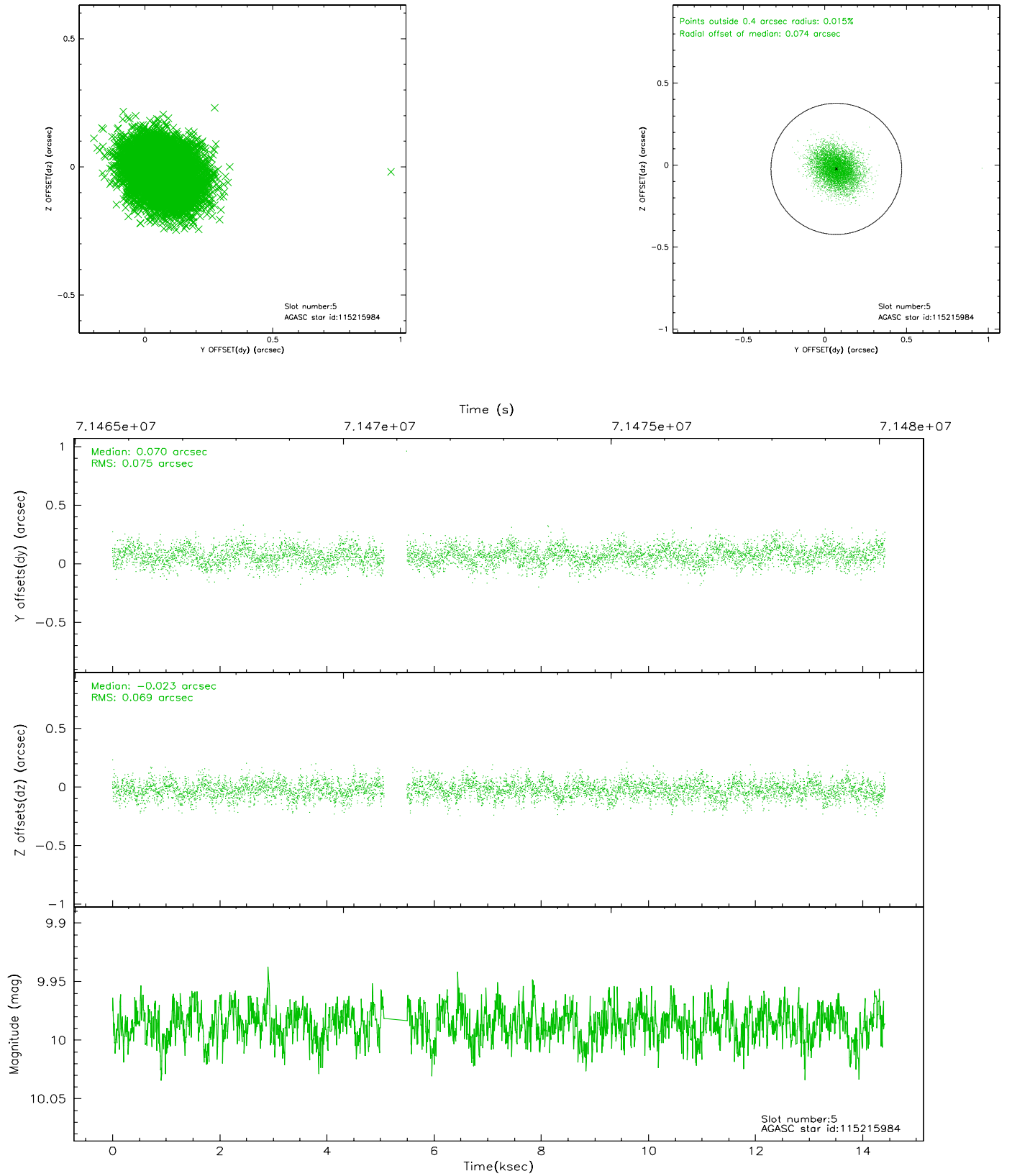
### 2.4.1 Slot 3



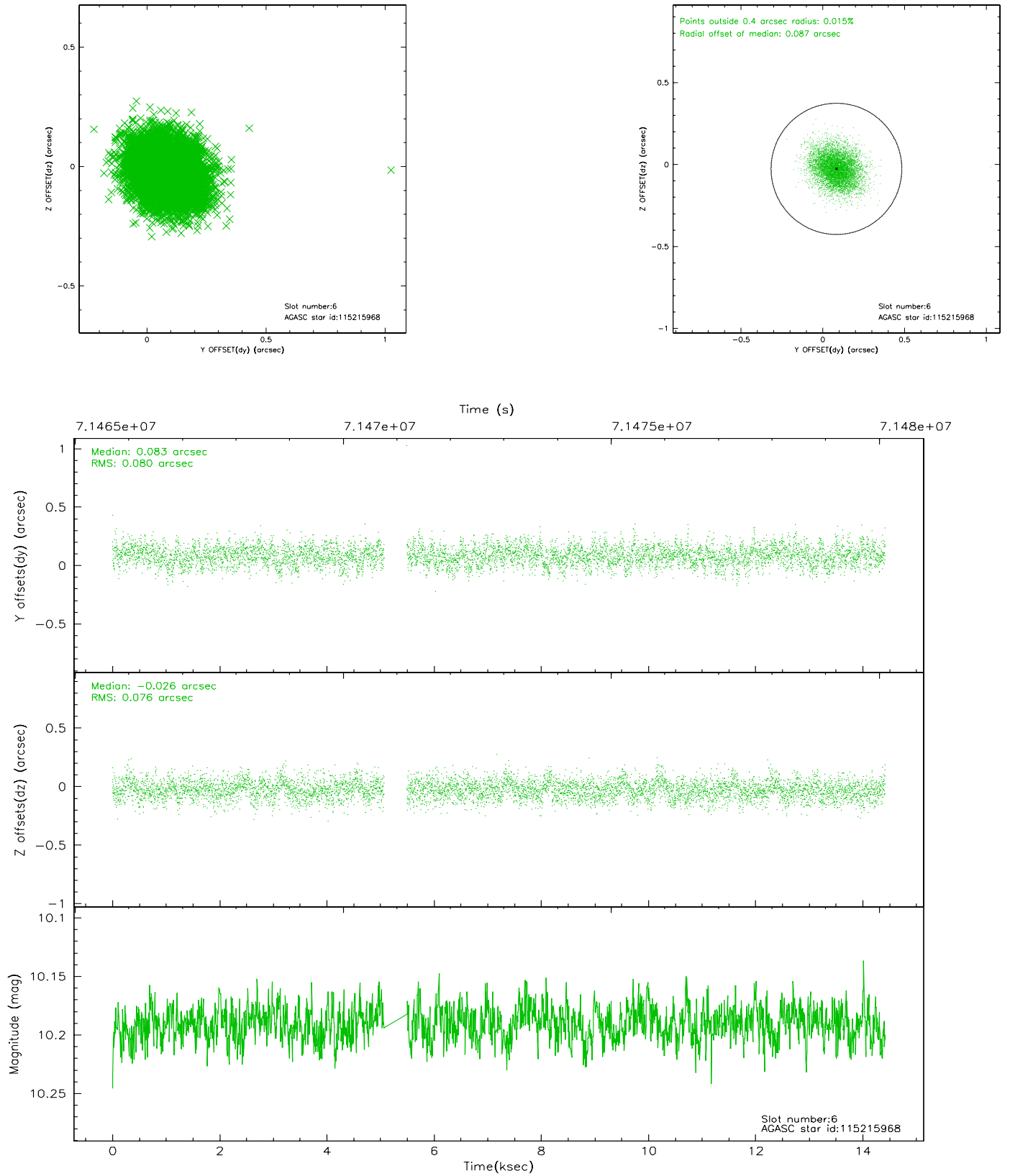
## 2.4.2 Slot 4



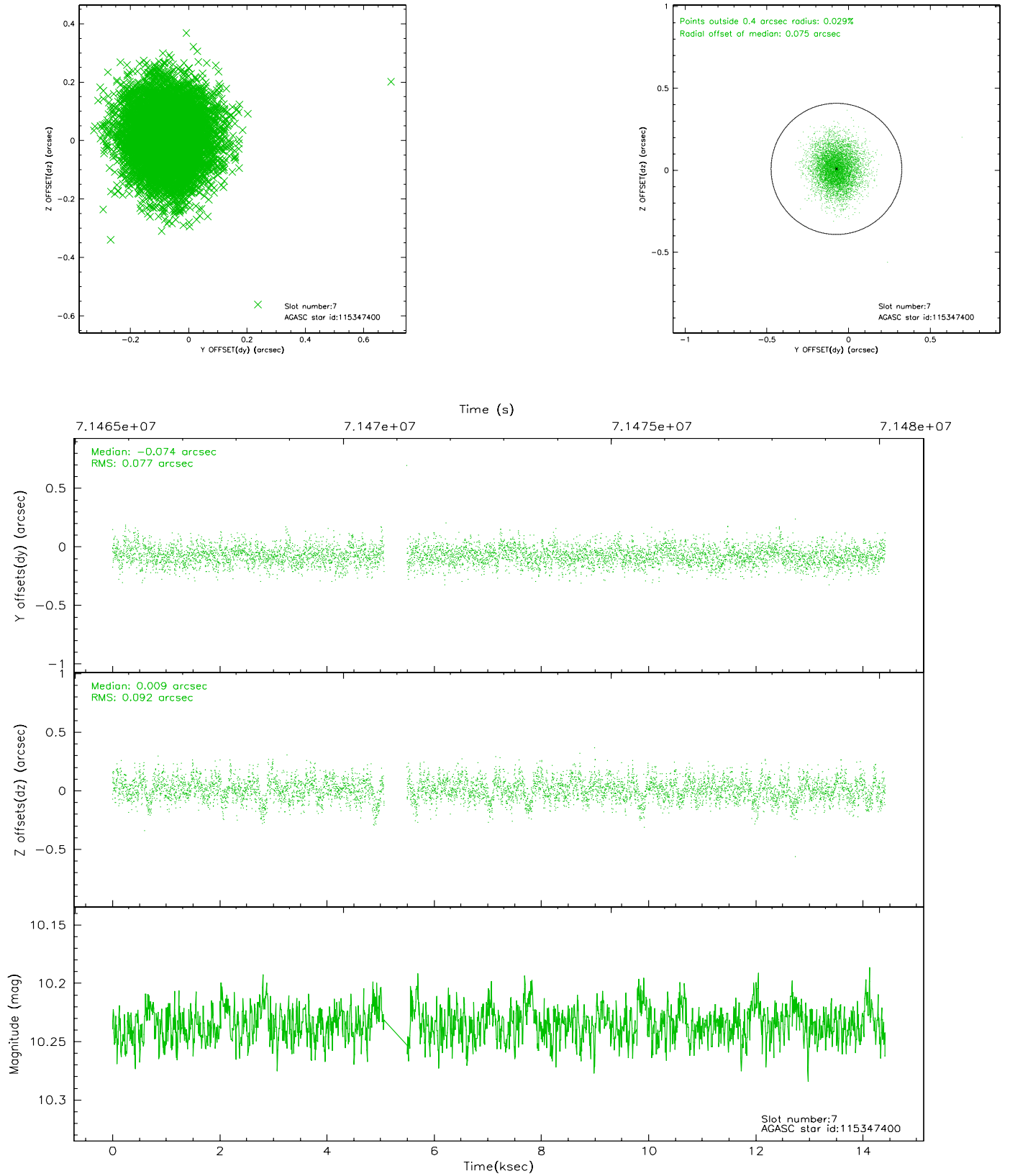
### 2.4.3 Slot 5



## 2.4.4 Slot 6



## 2.4.5 Slot 7



## 2.5 FID Slots

### 3 Point Sources

## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2007.09.07
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	14.944

### A.2 Comments

Charge time for this ObsId remains at original value of 14.944 ks, although with the current processing the charge time would have been 0 ksec. The difference is due to the fact that the fid lights were not turned on for this observation, so there is no Good Time Interval. The Level 2 event file is empty, but the Level 1 event file can be used for analysis. The lack of fid light data means there is no way to determine any misalignment between the bore sight of the telescope and the Aspect Camera.

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Roll constraint satisfied. requested: 210 +/- 5 actual: 207.