

# V&V Reference Report

## L2 ASCDS Version : 7.6.8

Observation 4111 - L2 Version 002  
Chandra X-Ray Center

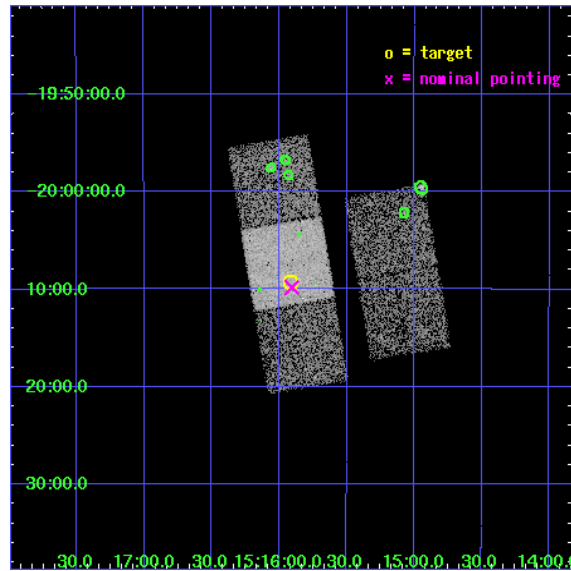
L2 Processing Date : Oct 30 2006

## 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>3</b>	<b>Point Sources</b>	<b>17</b>
<b>A</b>	<b>Summary</b>	<b>18</b>
A.1	Status . . . . .	18
A.2	Comments . . . . .	18

# 1 Front

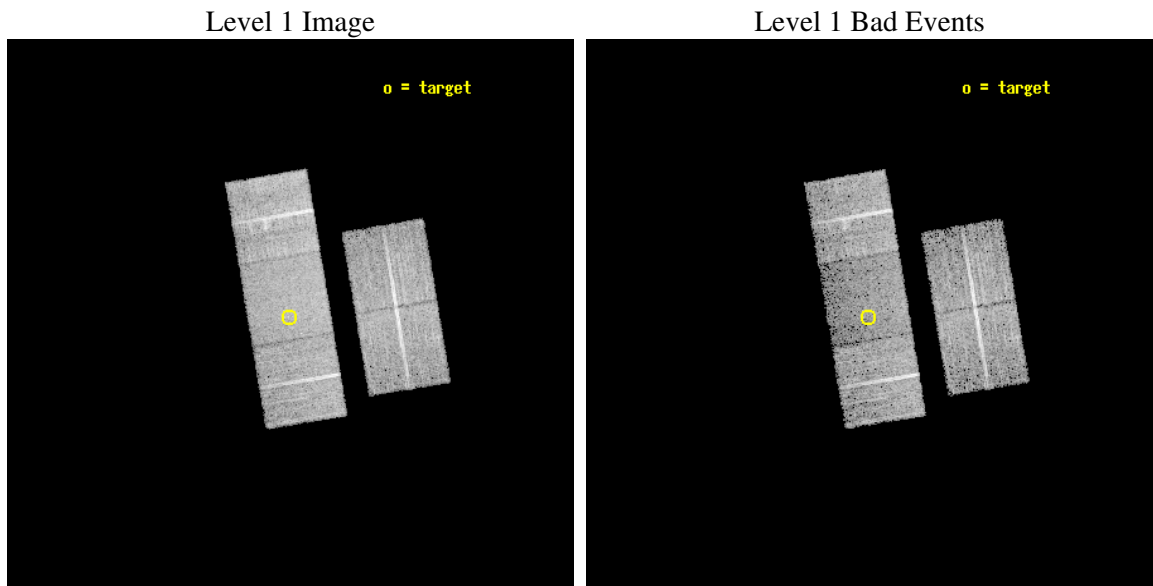
seq_num	700790
obs_id	4111
title	THE X-RAY PROPERTIES OF ULTRALUMINOUS INFRARED GALAXIES (ULIGS)
observer	Prof. Andrew Wilson
object	F15130-1958
dtcycle	0
cycle	P
ra_targ	228.98
dec_targ	-20.154722
ra_nom	228.97659553044
dec_nom	-20.163780974676
roll_nom	260.48655893378
revision	3
ontime	9957.199980855
livetime	9827.1018327211
ontime2	9954.0589807034
ontime3	9957.199980855
ontime6	9957.199980855
ontime7	9957.199980855
ontime8	9957.199980855
l2events	41926



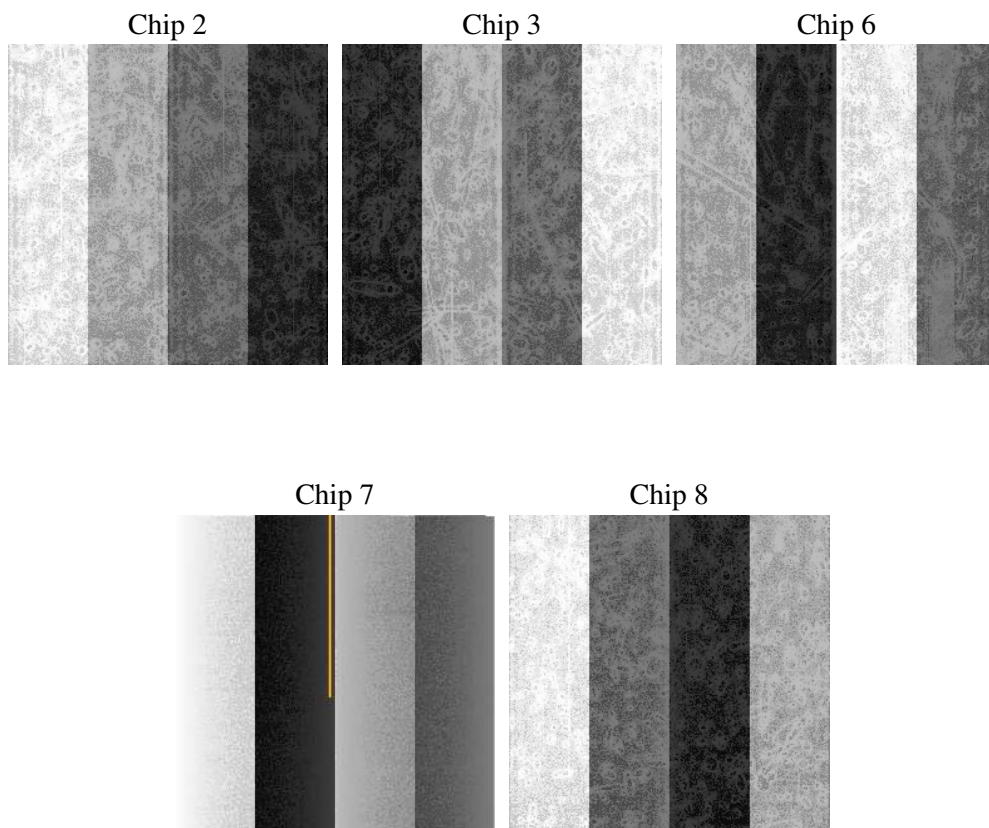
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1
ascdsver	7.6.9
caldbver	3.2.3
date	2006-10-30T14:38:54
revision	3

sched_exp_time	10000.000000
ontime	9963.2754327357
ontime2	9963.2754526734
ontime3	9963.2754327357
ontime6	9963.2754327357
ontime7	9963.2754327357
ontime8	9966.4164528251
l1events	270383

### 2.1.4 Events

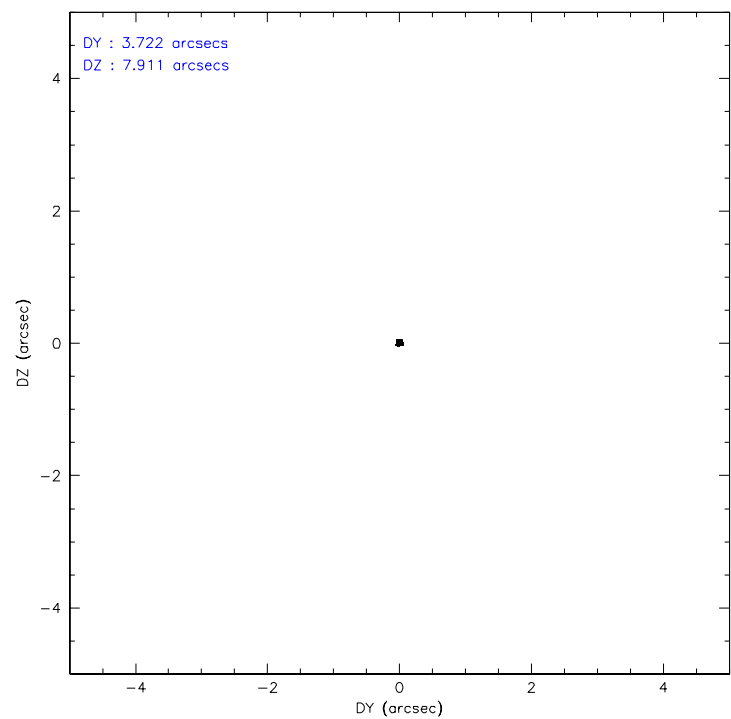
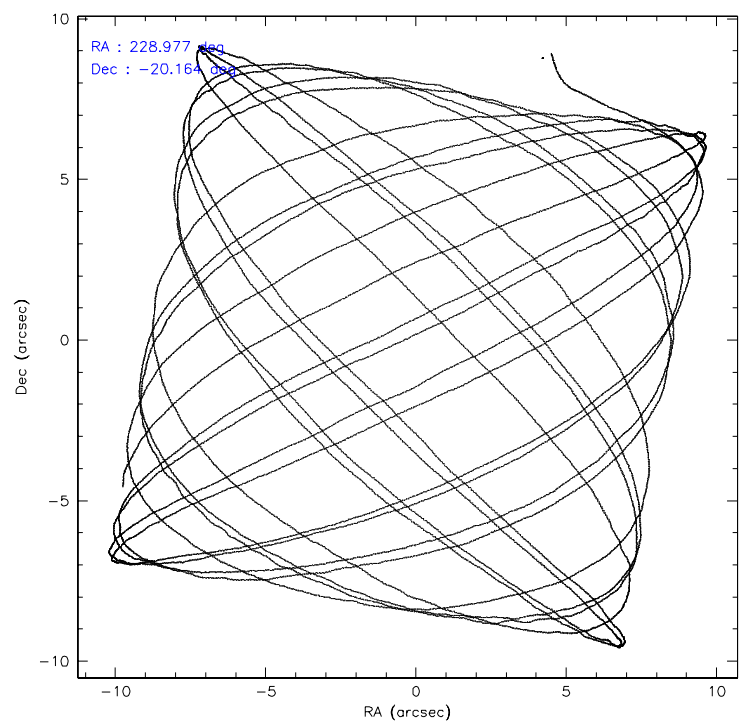
	<b>ccd 2</b>	<b>ccd 3</b>	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
level 1 events	49847	48318	52052	55082	65084
rejected events	44915	43436	46542	31474	50262
rejected %	90%	89%	89%	57%	77%

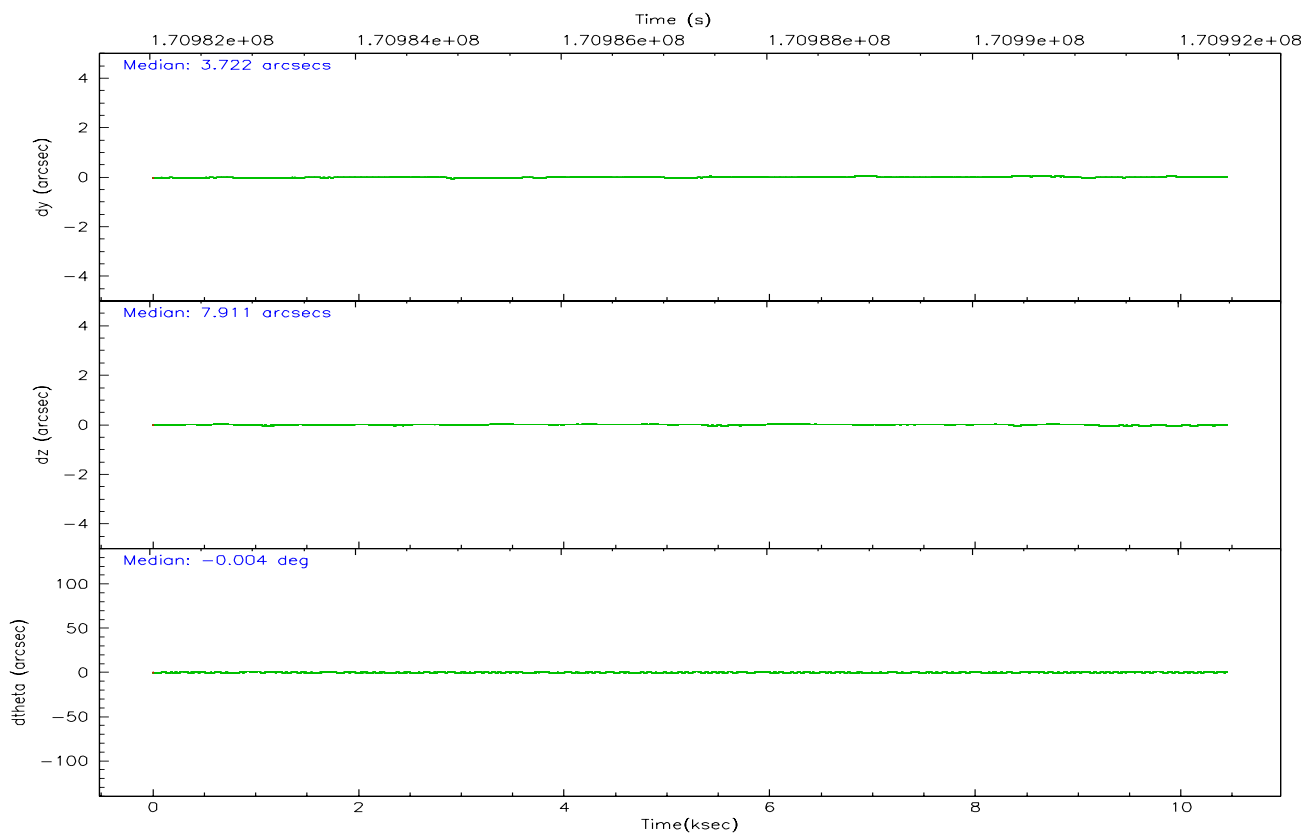
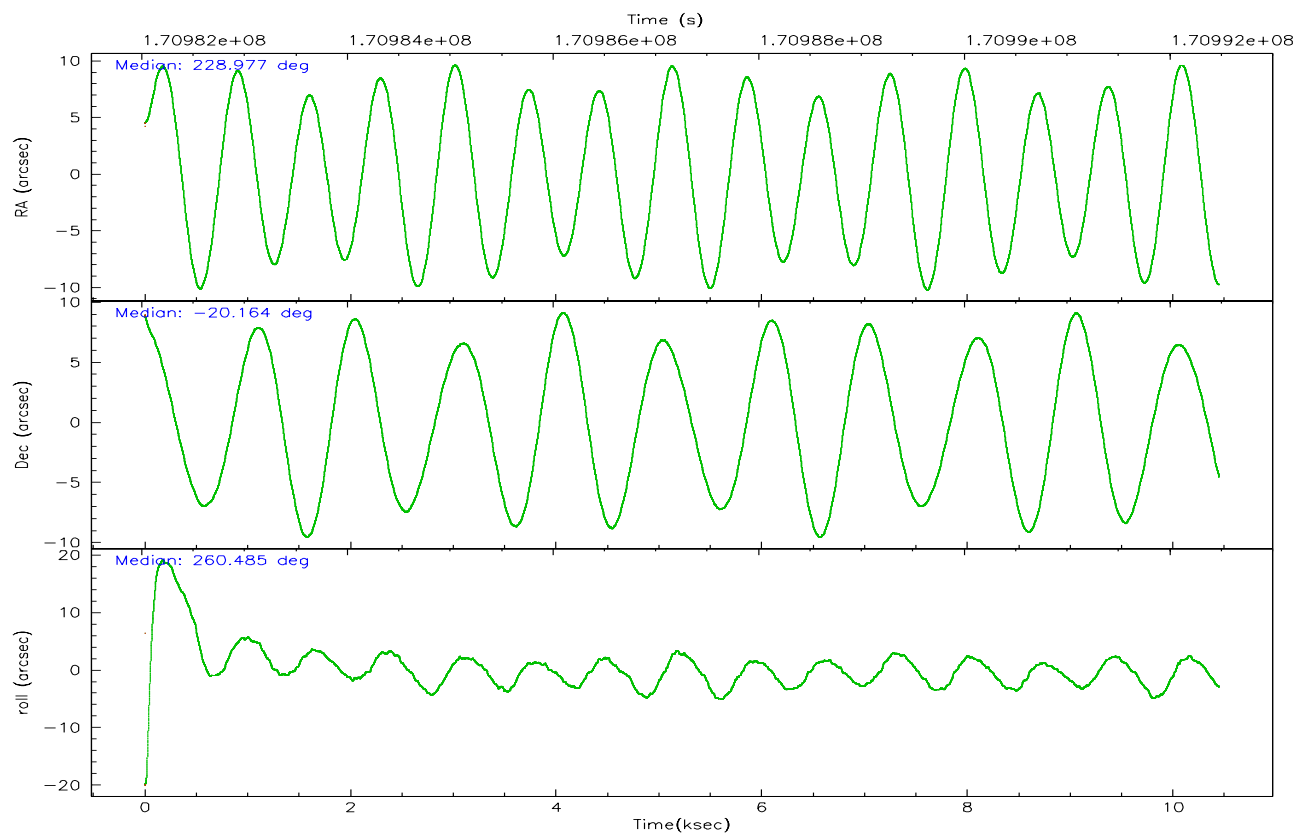
	<b>ccd 2</b>	<b>ccd 3</b>	<b>ccd 6</b>	<b>ccd 7</b>	<b>ccd 8</b>
grade 0 events	1933	1917	2122	1611	4642
	3%	3%	4%	2%	7%
grade 1 events	27	21	26	33	34
	0%	0%	0%	0%	0%
grade 2 events	1105	971	1120	5958	3187
	2%	2%	2%	10%	4%
grade 3 events	543	557	603	1447	1560
	1%	1%	1%	2%	2%
grade 4 events	519	553	564	1385	1414
	1%	1%	1%	2%	2%
grade 5 events	1590	1908	2006	4235	2792
	3%	3%	3%	7%	4%
grade 6 events	834	887	1103	13217	4042
	1%	1%	2%	23%	6%
grade 7 events	43296	41504	44508	27196	47413
	86%	85%	85%	49%	72%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-23678	ACIS-23678	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	On-chip summing requested	N	N
Observation mode	POINTING	POINTING	Subarray requested	NONE	NONE
Pointing RA	228.966028	228.9765955304441	Alternating exposures requested	N	N
Pointing Dec	-20.138459	-20.16378097467636	Primary exposure time	0.000000	3.1
Pointing Roll	260.326332	260.4865589337814			
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	170982481.184000	170981391.03642			
Observation start date	2003-06-02T23:06:57	2003-06-02T22:49:51			
Observation end time	170992481.184000	170993208.26192			
Observation end date	2003-06-03T01:53:37	2003-06-03T02:06:48			
Read mode	TIMED	TIMED			

### 2.3 Aspect





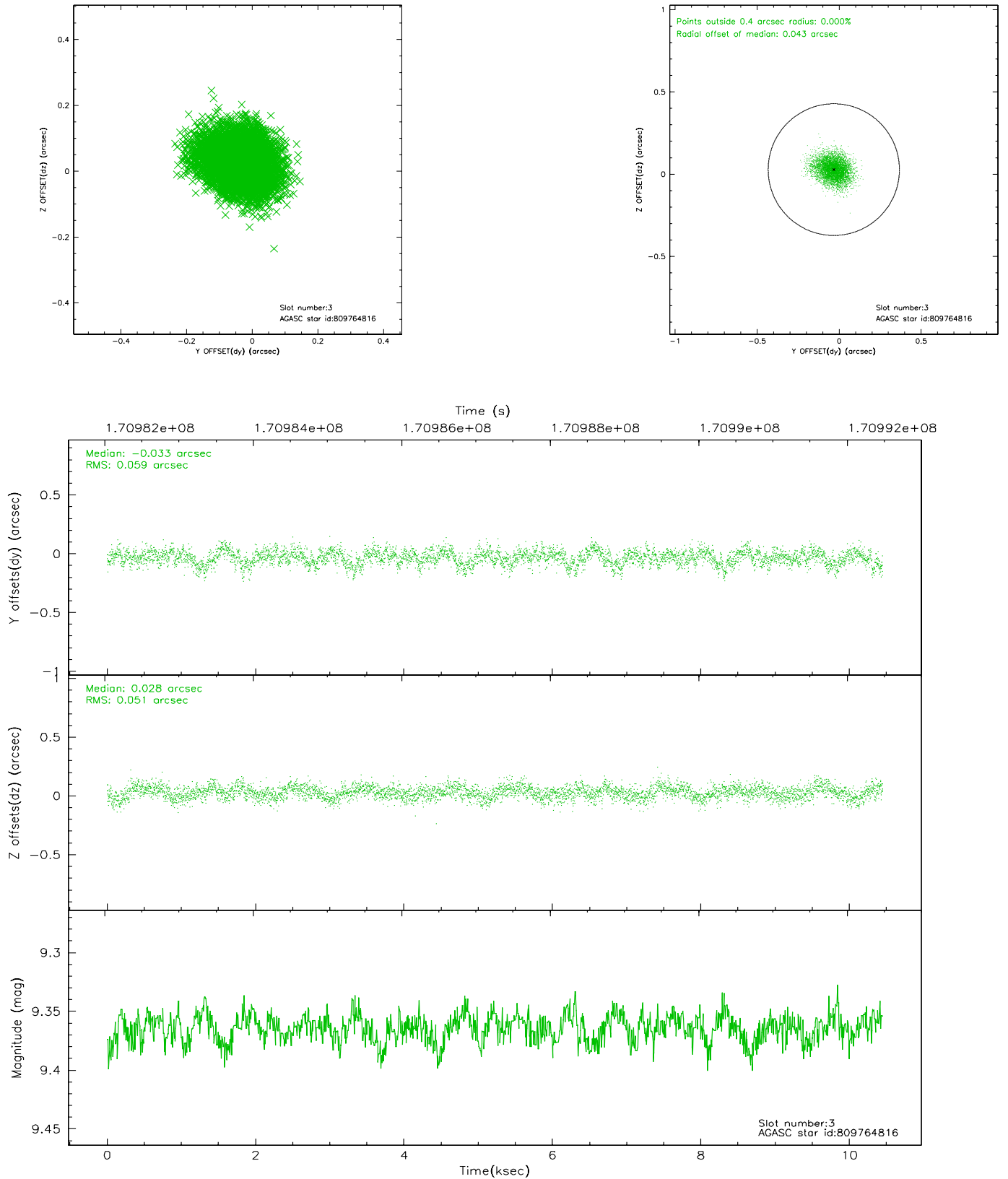
### Slot Statistics

slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	2548	-0.005	-0.001	0.006	0.011	0.000000	0.000000	-756.40	-1729.10
1	FID	ACIS-S-4	7.20	2548	0.003	0.003	0.005	0.008	0.000000	0.000000	2156.67	178.85
2	FID	ACIS-S-5	7.24	2549	-0.029	0.007	0.006	0.010	0.000000	0.000000	-1808.61	173.12
3	GUIDE	809764816	9.36	5096	-0.033	0.028	0.083	0.136	229.258328	-20.607527	1500.34	1254.79
4	GUIDE	809765760	8.74	5094	0.038	0.021	0.066	0.109	229.188364	-20.001489	-611.16	658.90
5	GUIDE	809766088	9.33	5091	-0.010	-0.040	0.085	0.136	229.034100	-20.426907	985.25	400.94
6	GUIDE	810293160	9.39	5096	0.024	0.018	0.092	0.154	229.357046	-20.836198	2257.13	1719.44
7	GUIDE	810296608	7.93	5097	-0.018	-0.024	0.056	0.090	229.462165	-20.722168	1794.05	2000.75

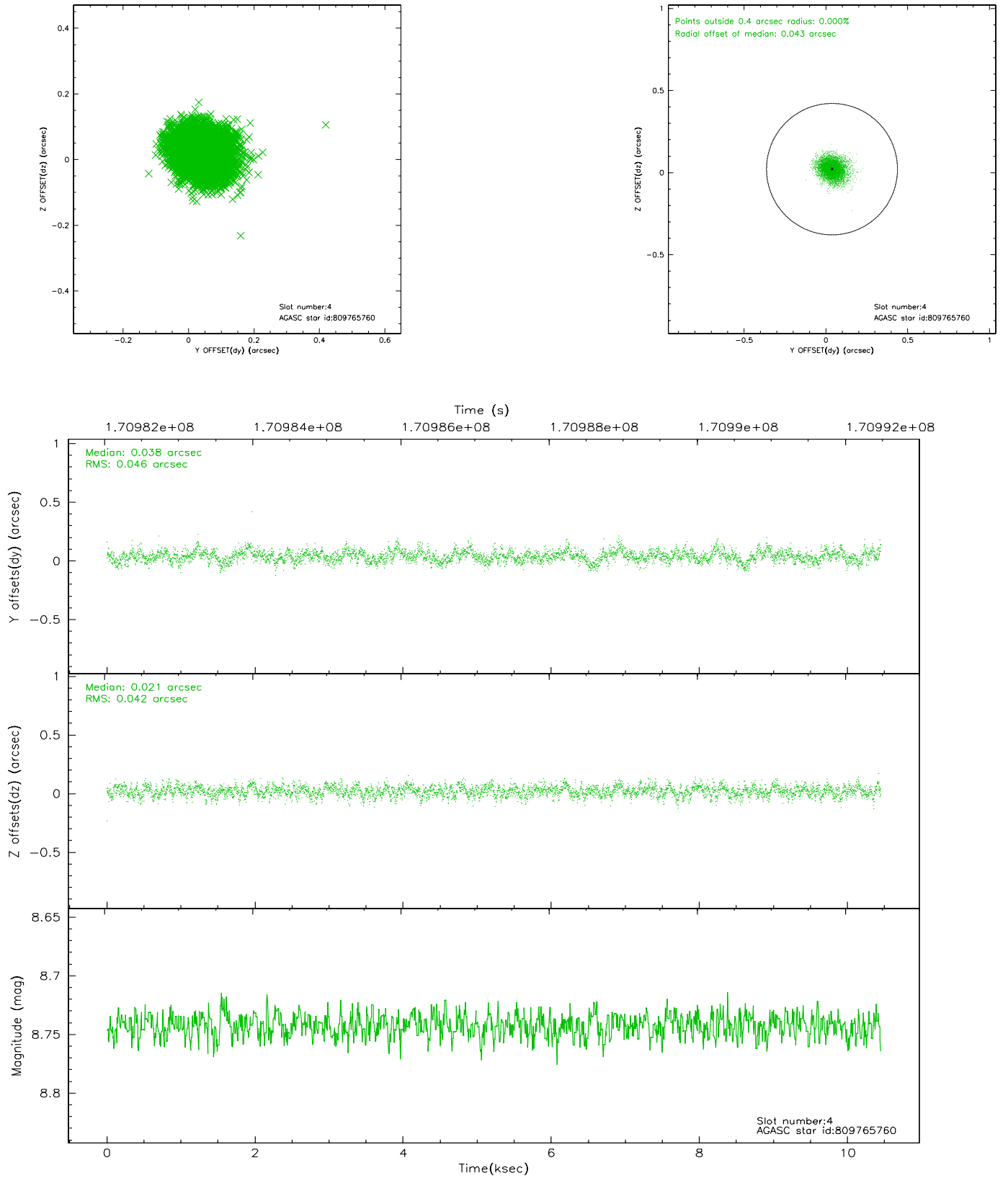


## 2.4 Star Slots

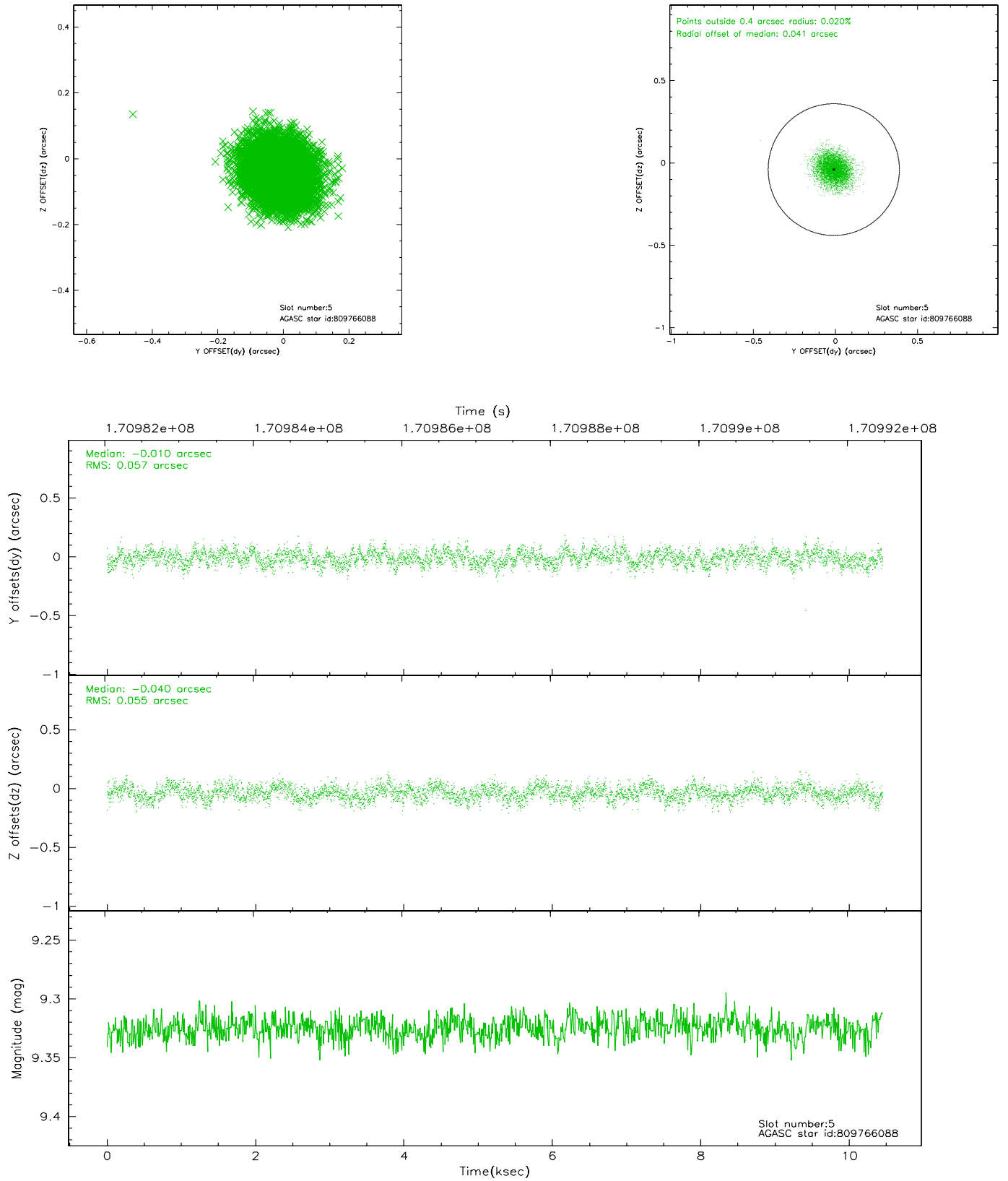
### 2.4.1 Slot 3



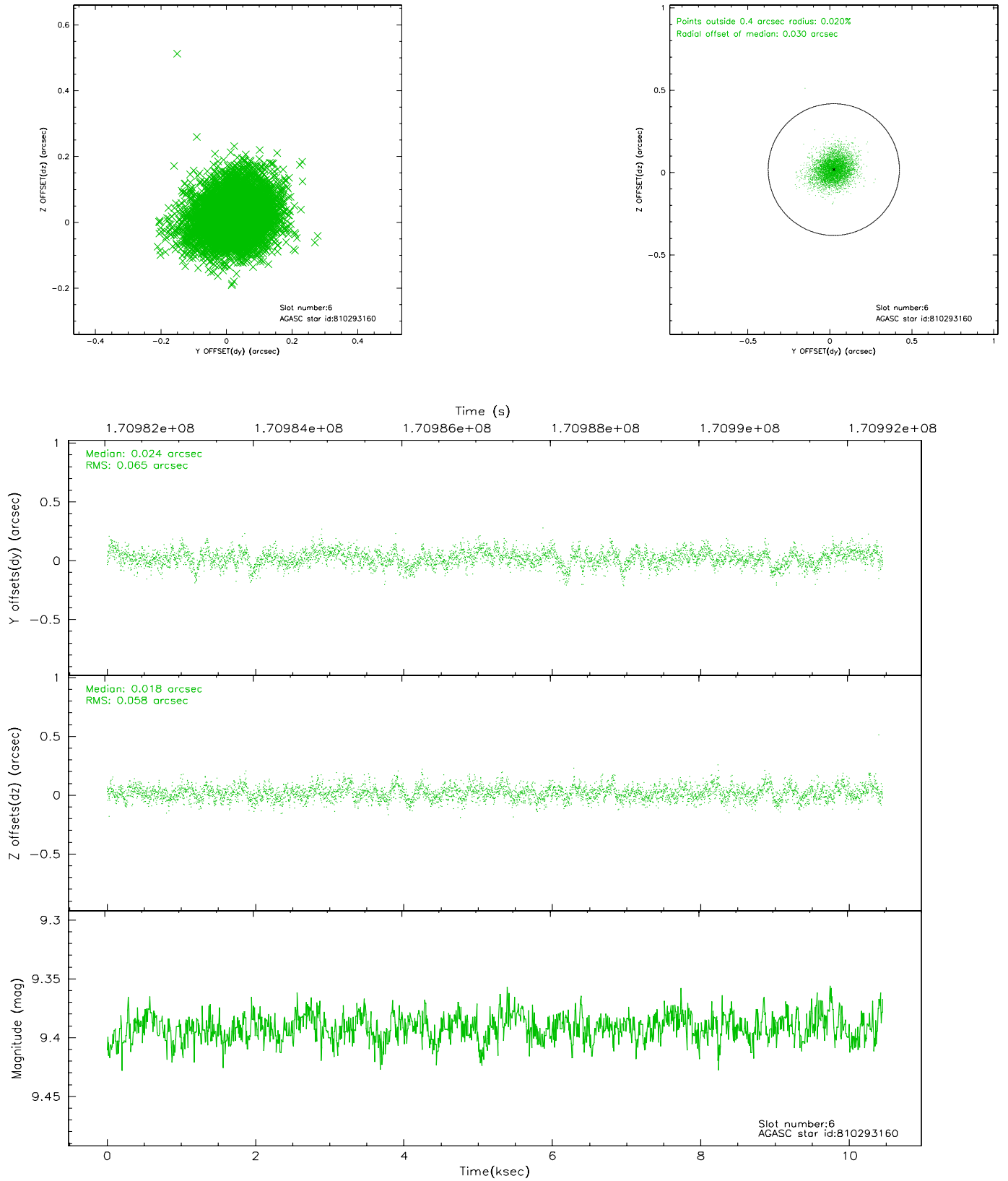
## 2.4.2 Slot 4



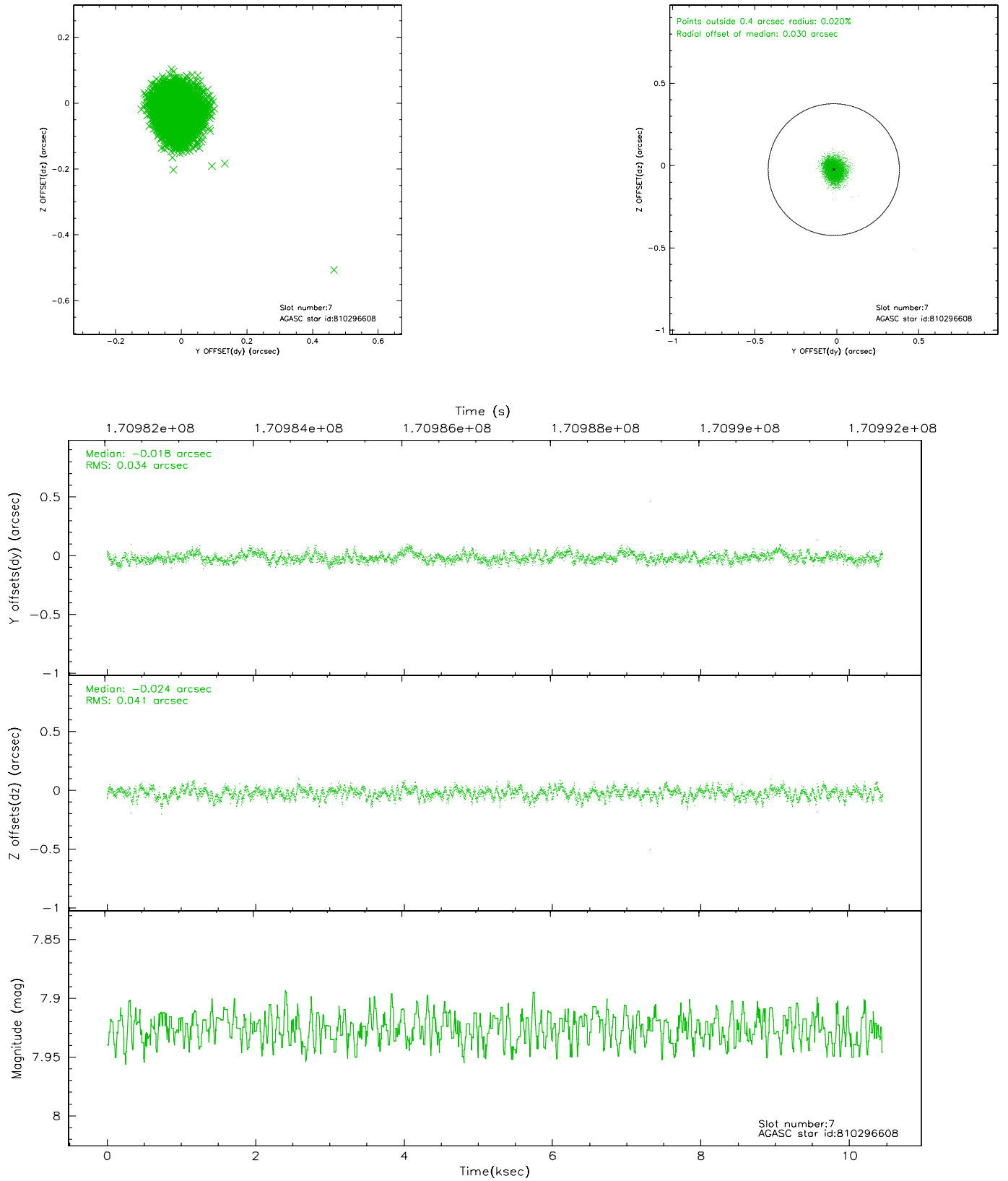
### 2.4.3 Slot 5



## 2.4.4 Slot 6

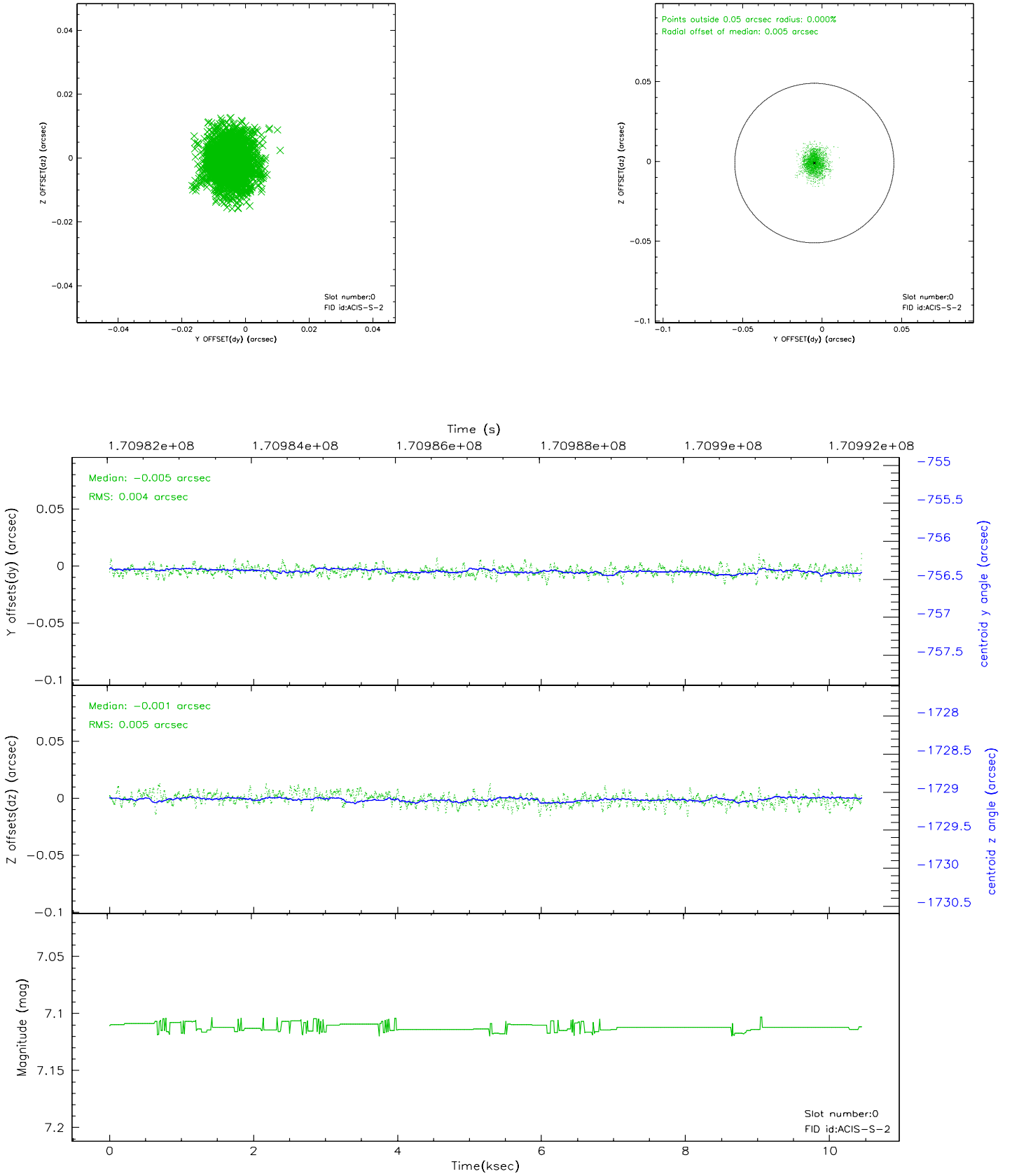


## 2.4.5 Slot 7

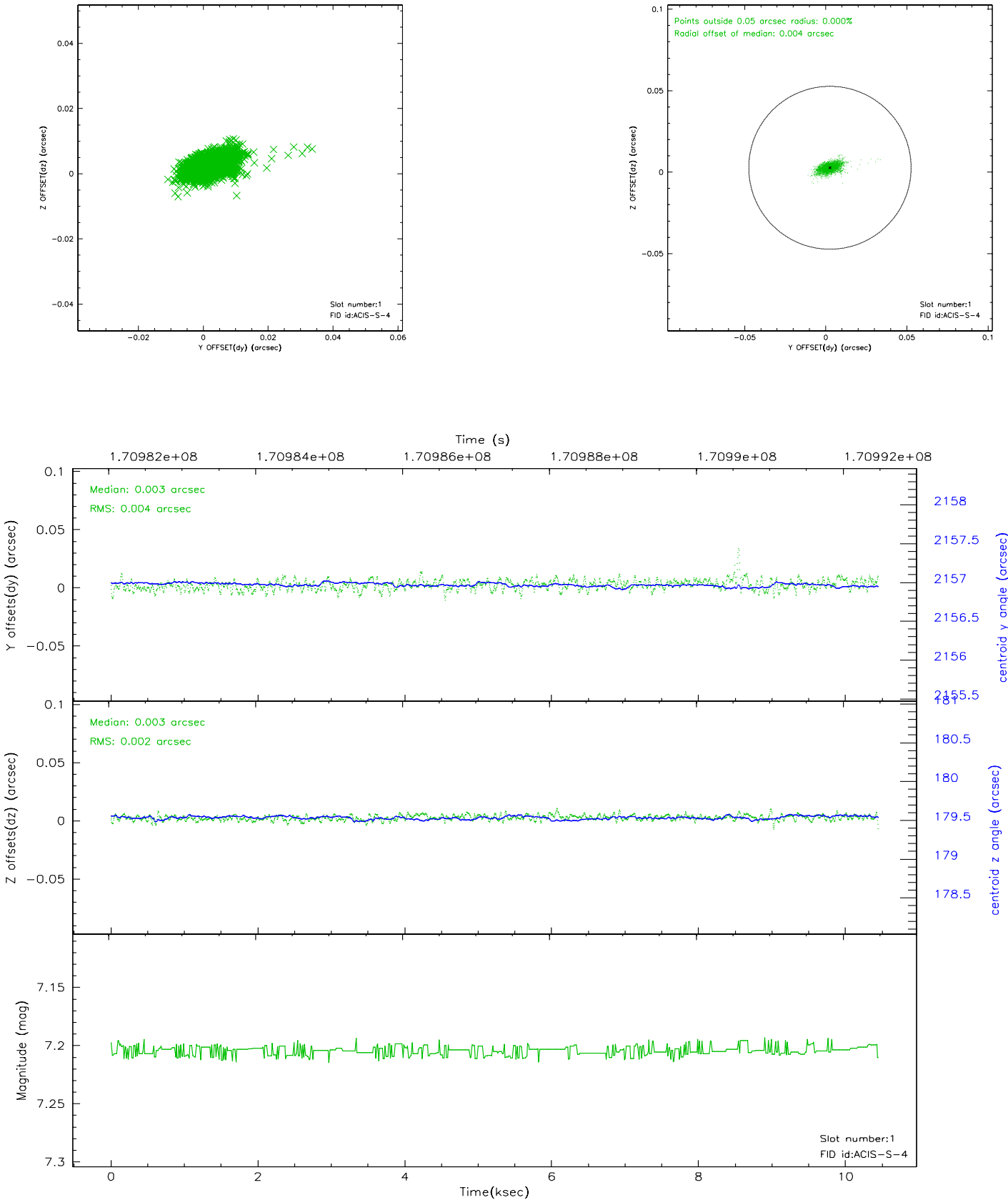


## 2.5 FID Slots

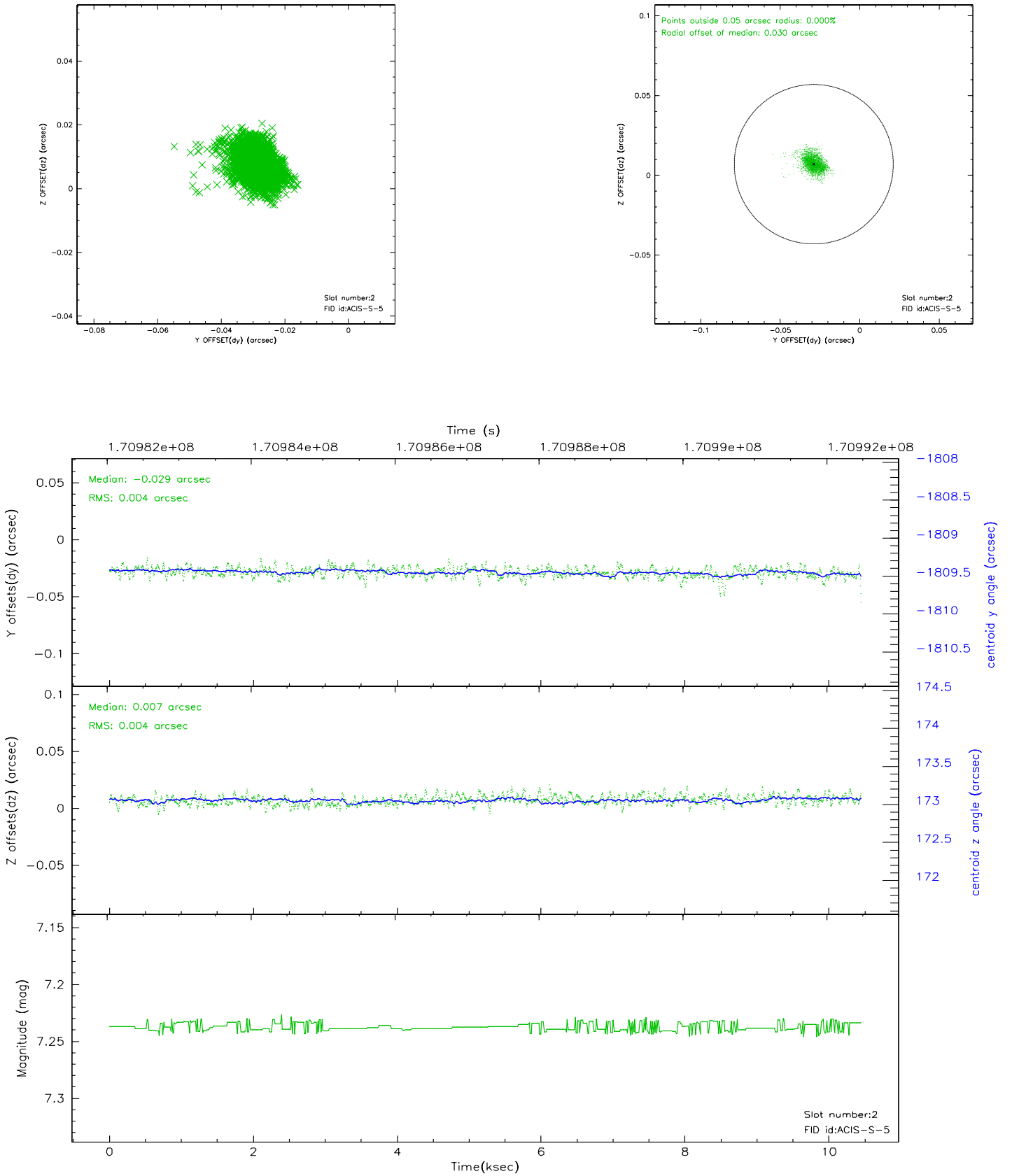
### 2.5.1 Slot 0



2.5.2 Slot 1

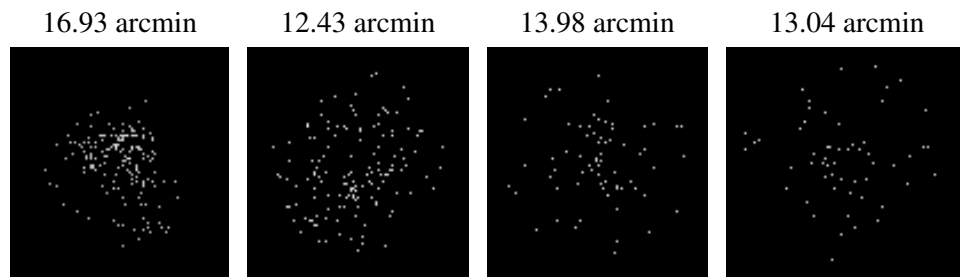


### 2.5.3 Slot 2





### 3 Point Sources



# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2006.10.30
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.96

## A.2 Comments

The bias in CCD\_ID = 6 suffered from anomalously high bias values for a scalpel-shaped area of the bias file. The anomalous data were removed, replaced with 'missing data' values, and repaired using scaled data from a comparable bias map for another observation to fill the data gaps. Data in rows 1 - 321, columns 623 - 886 were replaced.