

# V&V Reference Report

## L2 ASCDS Version : 7.6.9

Observation 2707 - L2 Version 001  
Chandra X-Ray Center

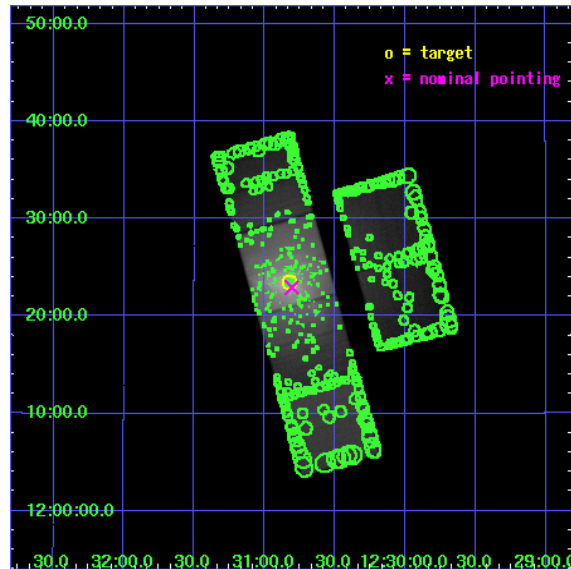
L2 Processing Date : Sep 23 2006

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# 1 Front

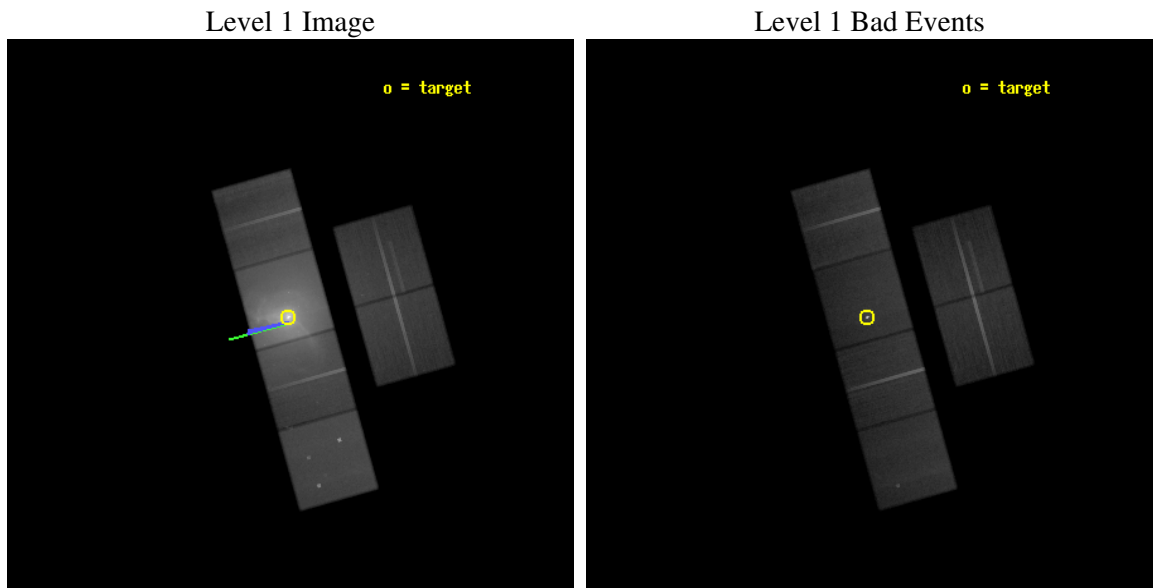
seq_num	400187
obs_id	2707
title	THE EXTRAORDINARY GLOBULAR CLUSTER SYSTEM OF M87: THE VIEW FROM CHANDRA
observer	PROF. PATRICK COTE
object	NGC4486
dtcycle	0
cycle	P
ra_targ	187.705833
dec_targ	12.391111
ra_nom	187.70151716377
dec_nom	12.382383121687
roll_nom	254.35755820459
revision	2
ontime	99929.231005132
livetime	98663.866911986
ontime2	99951.91766721
ontime3	99948.676677048
ontime5	99958.399627626
ontime6	99951.91771701
ontime7	99929.231005132
ontime8	99955.158667386
l2events	6330020



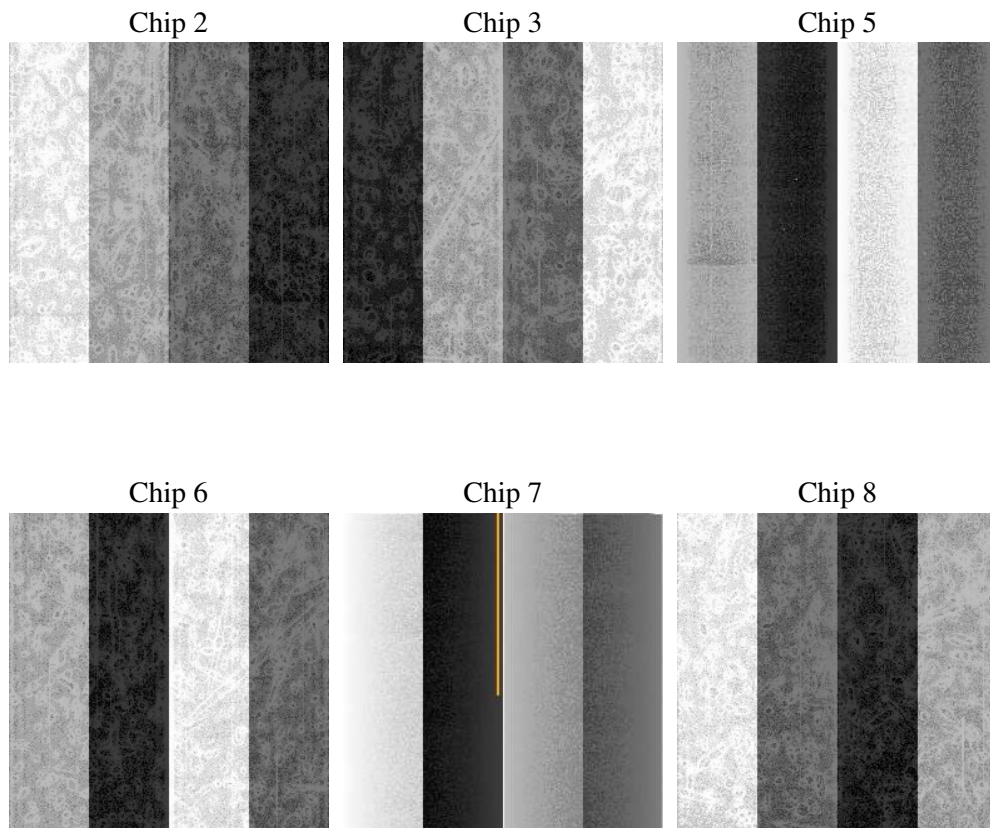
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.9
caldsver	3.2.3
date	2006-09-22T22:09:32
revision	2

sched_exp_time	100000.000000
ontime	99936.250119597
ontime2	99958.936761737
ontime3	99955.695791513
ontime5	99965.41874209
ontime6	99958.936811537
ontime7	99936.250119597
ontime8	99962.17778185
l1events	10221875

### 2.1.4 Events

	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
level 1 events	861666	894070	1218952	1475727	4604194	1167266
rejected events	600895	572402	542146	609086	608459	658664
rejected %	69%	64%	44%	41%	13%	56%

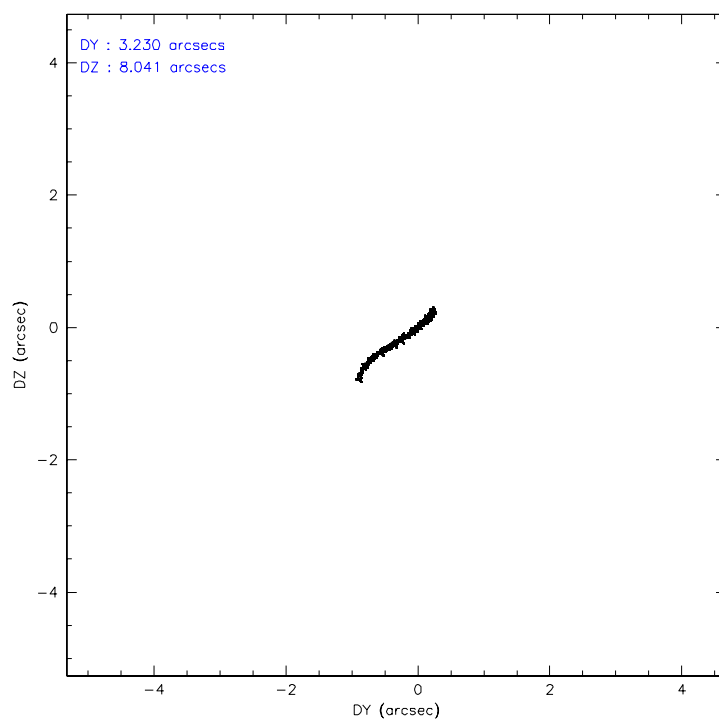
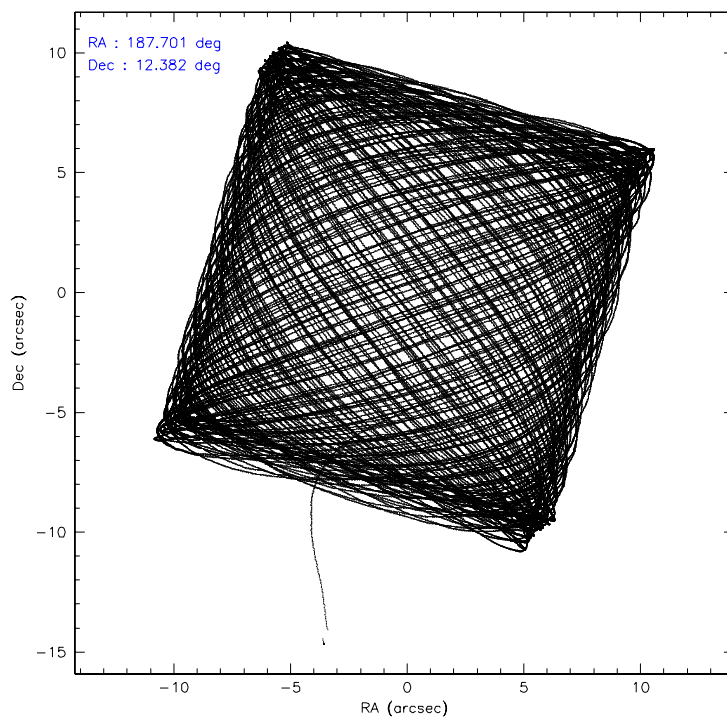
	ccd 2	ccd 3	ccd 5	ccd 6	ccd 7	ccd 8
grade 0 events	184537	236454	113214	695521	1102093	330694
	21%	26%	9%	47%	23%	28%
grade 1 events	1016	1151	896	2808	3932	1599
	0%	0%	0%	0%	0%	0%
grade 2 events	34816	38764	222921	86755	1113747	67833
	4%	4%	18%	5%	24%	5%
grade 3 events	11918	13810	26015	27384	424644	29625
	1%	1%	2%	1%	9%	2%
grade 4 events	11938	13680	25398	27403	416358	28242
	1%	1%	2%	1%	9%	2%
grade 5 events	24030	26687	47496	30505	89410	37492
	2%	2%	3%	2%	1%	3%
grade 6 events	17580	19011	289324	29658	939449	52265
	2%	2%	23%	2%	20%	4%
grade 7 events	575831	544513	493688	575693	514561	619516
	66%	60%	40%	39%	11%	53%

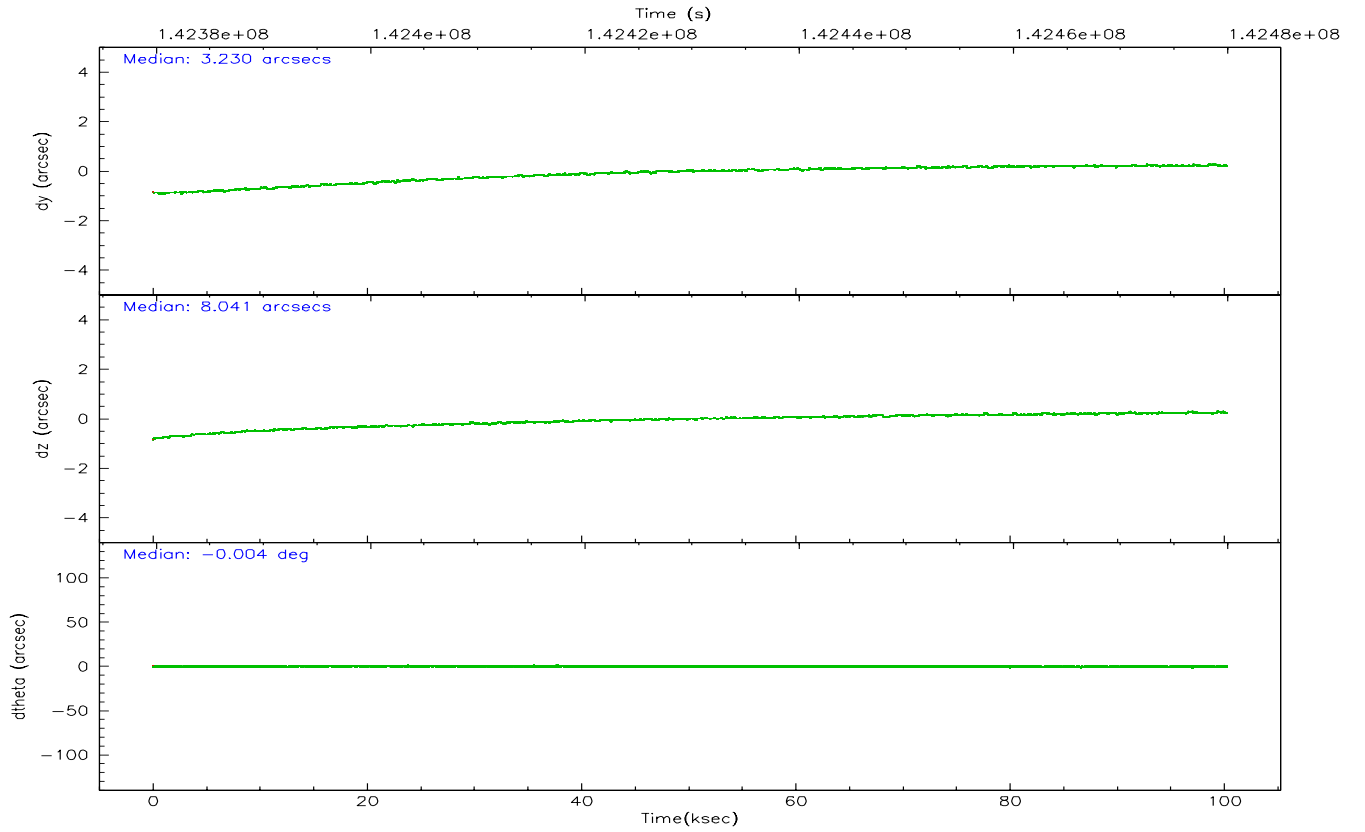
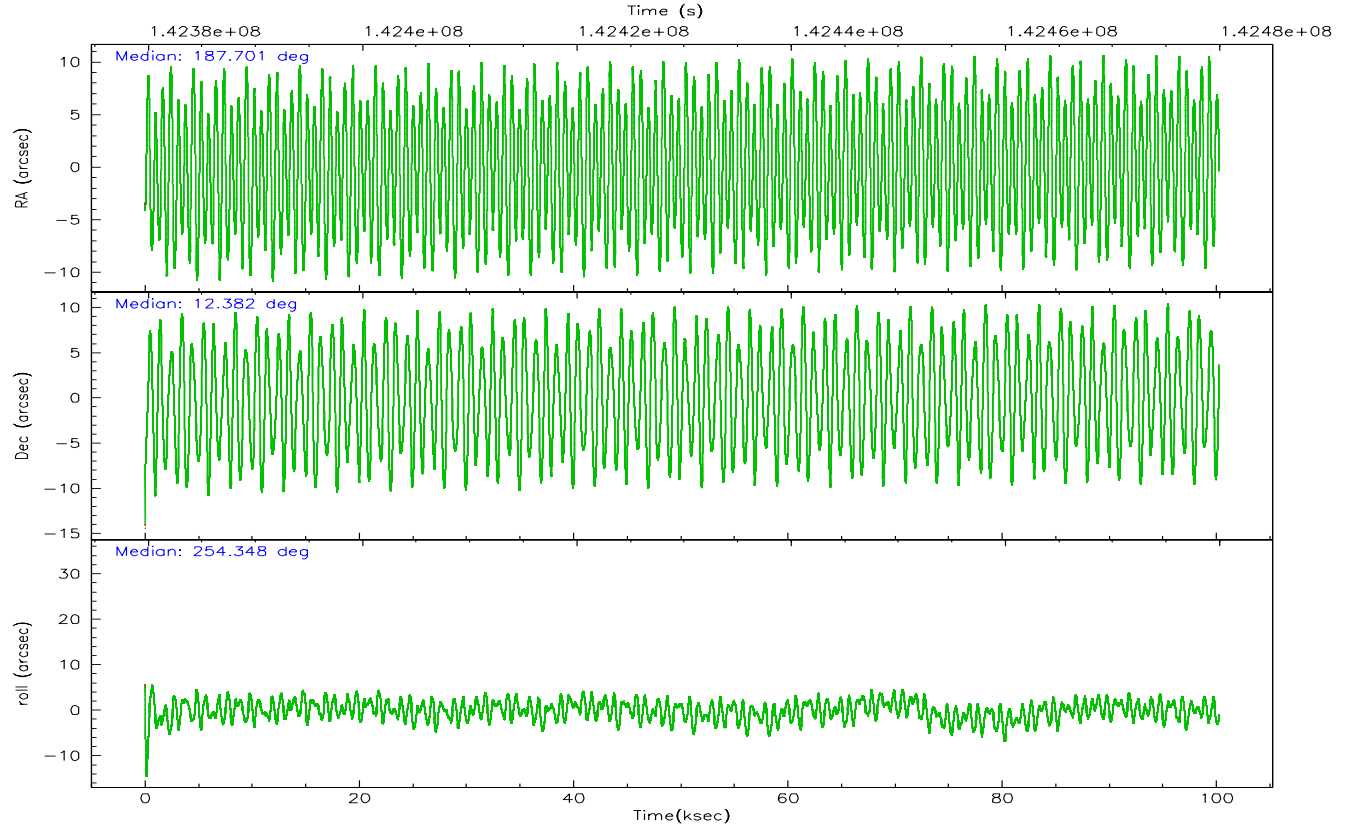


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-235678	ACIS-235678	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	187.694260	187.7015171637721	Subarray requested	NONE	NONE
Pointing Dec	12.408689	12.38238312168673	Alternating exposures requested	N	N
Pointing Roll	254.202483	254.3575582045918	Primary exposure time	0.000000	3.2
Roll angle	256.200000	256.200000			
Roll tolerance	2.000000	2.000000			
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	142379951.184000	142378953.95489			
Observation start date	2002-07-06T21:58:07	2002-07-06T21:42:33			
Observation end time	142479951.184000	142481249.98409			
Observation end date	2002-07-08T01:44:47	2002-07-08T02:07:29			
Read mode	TIMED	TIMED			

## 2.3 Aspect



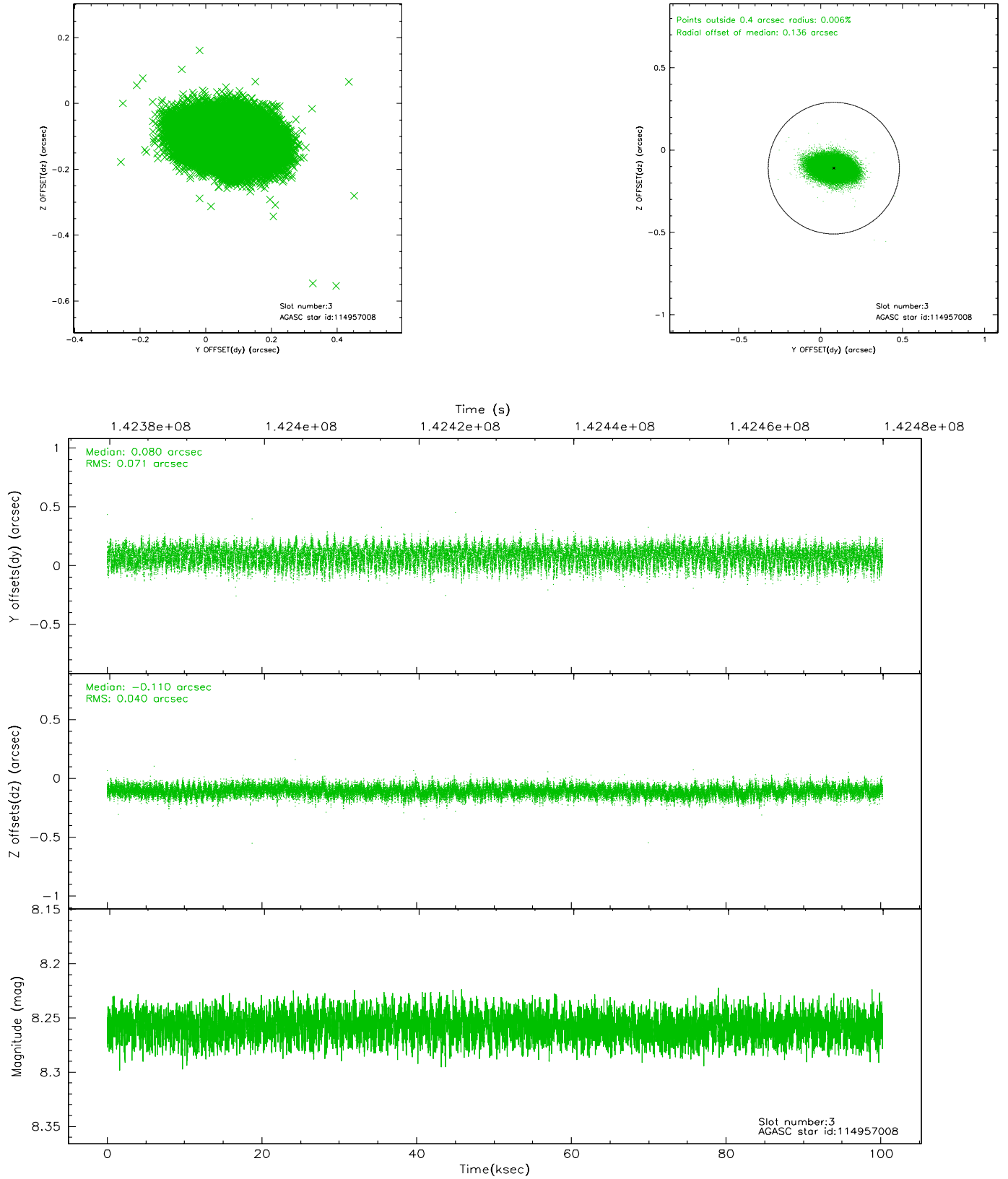


### Slot Statistics

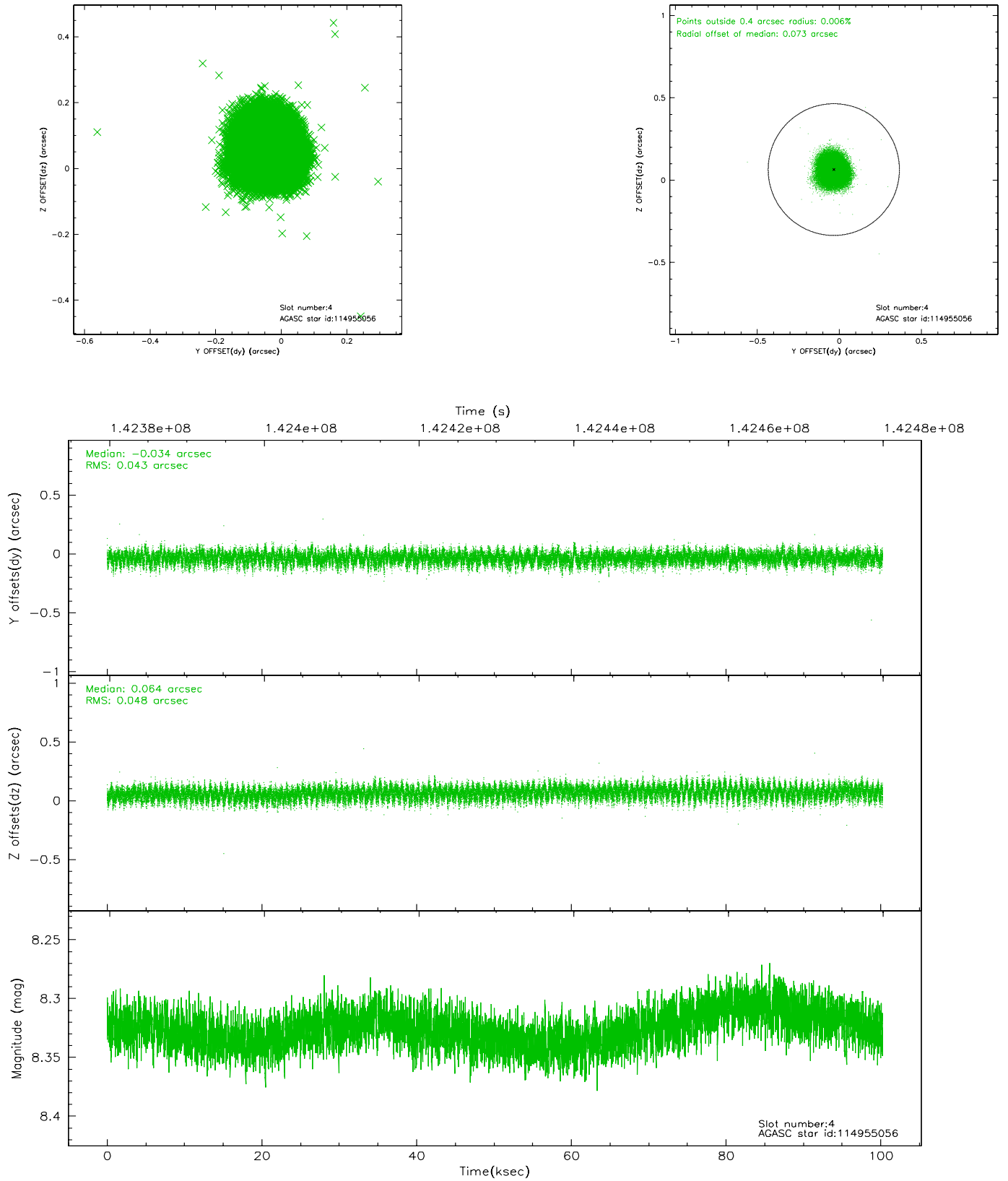
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.11	24449	0.007	0.024	0.010	0.017	0.000000	0.000000	-755.76	-1729.13
1	FID	ACIS-S-4	7.20	24438	-0.063	-0.010	0.018	0.030	0.000000	0.000000	2157.50	179.39
2	FID	ACIS-S-5	7.24	24444	0.023	-0.005	0.017	0.037	0.000000	0.000000	-1808.67	172.99
3	GUIDE	114957008	8.26	48886	0.080	-0.110	0.086	0.141	186.894794	12.099160	1834.83	-2404.80
4	GUIDE	114955056	8.33	48891	-0.034	0.064	0.069	0.111	187.914001	12.127854	761.69	1020.32
5	GUIDE	114954440	9.20	48876	0.025	-0.033	0.113	0.184	186.915066	12.219118	1399.59	-2452.01
6	GUIDE	114952424	9.33	48876	0.054	0.088	0.095	0.157	187.477948	11.953762	1783.16	-286.44
7	GUIDE	114952792	9.50	48870	-0.127	-0.007	0.100	0.161	187.070263	12.344747	816.78	-2048.81

## 2.4 Star Slots

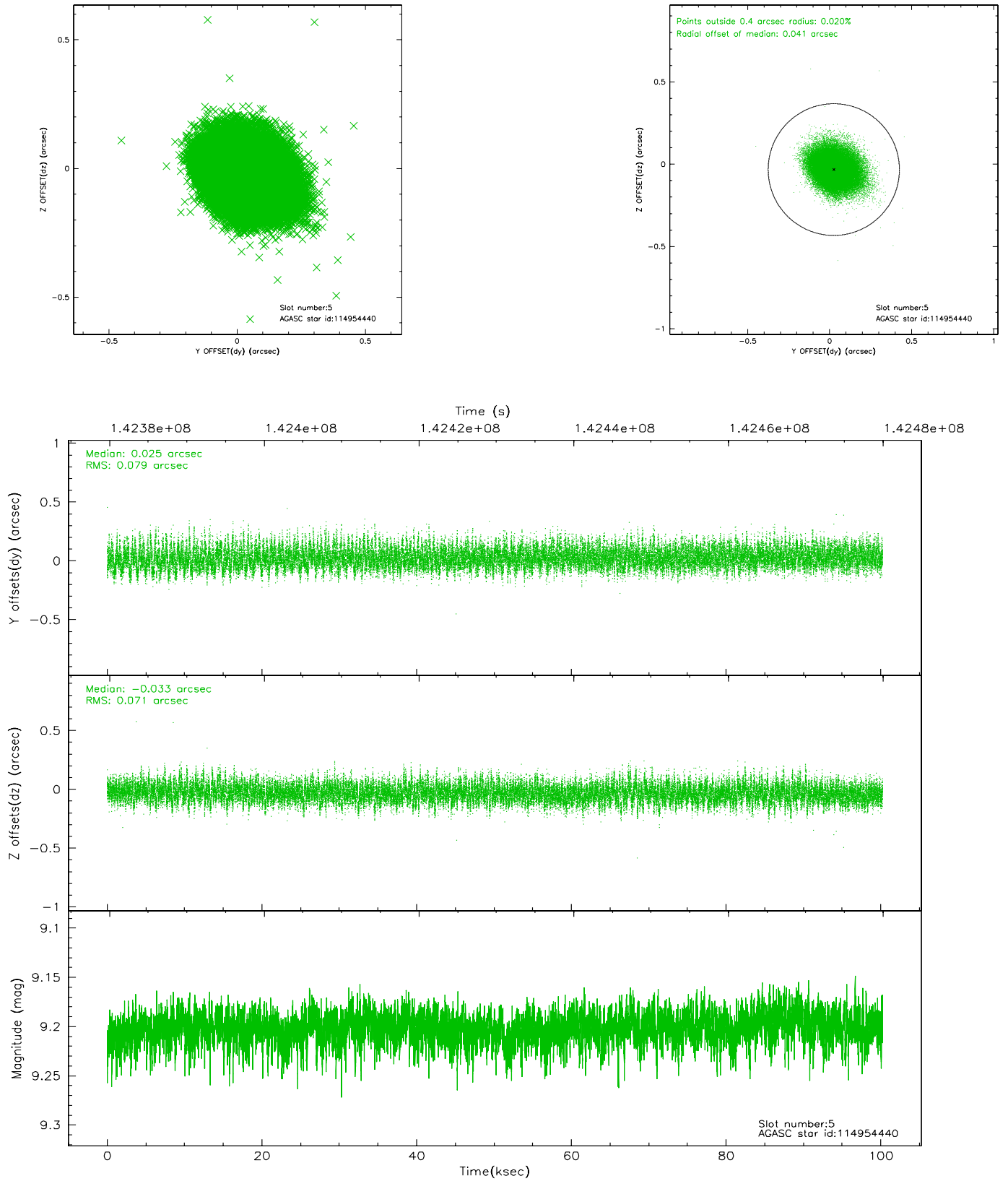
### 2.4.1 Slot 3



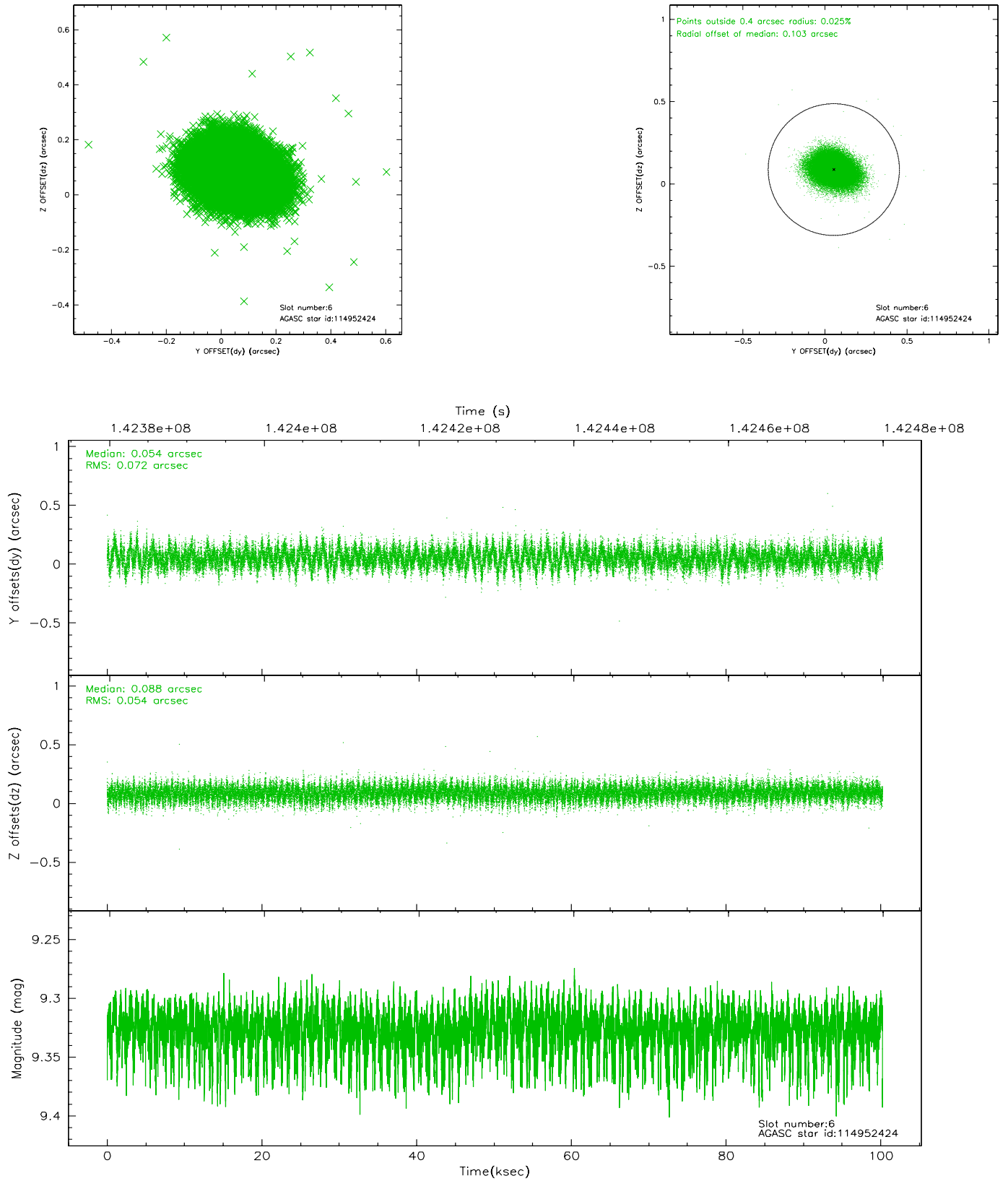
## 2.4.2 Slot 4



### 2.4.3 Slot 5

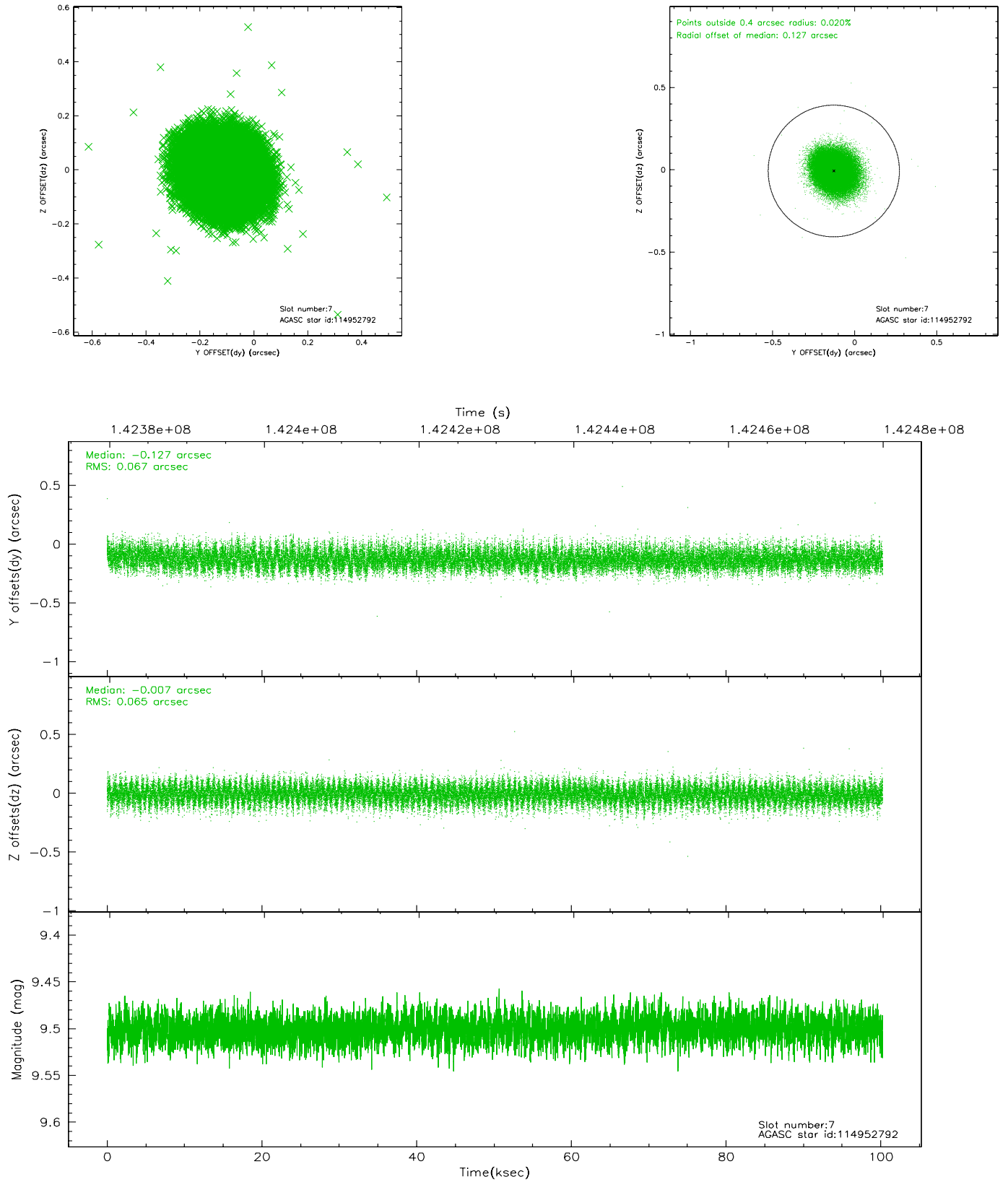


## 2.4.4 Slot 6



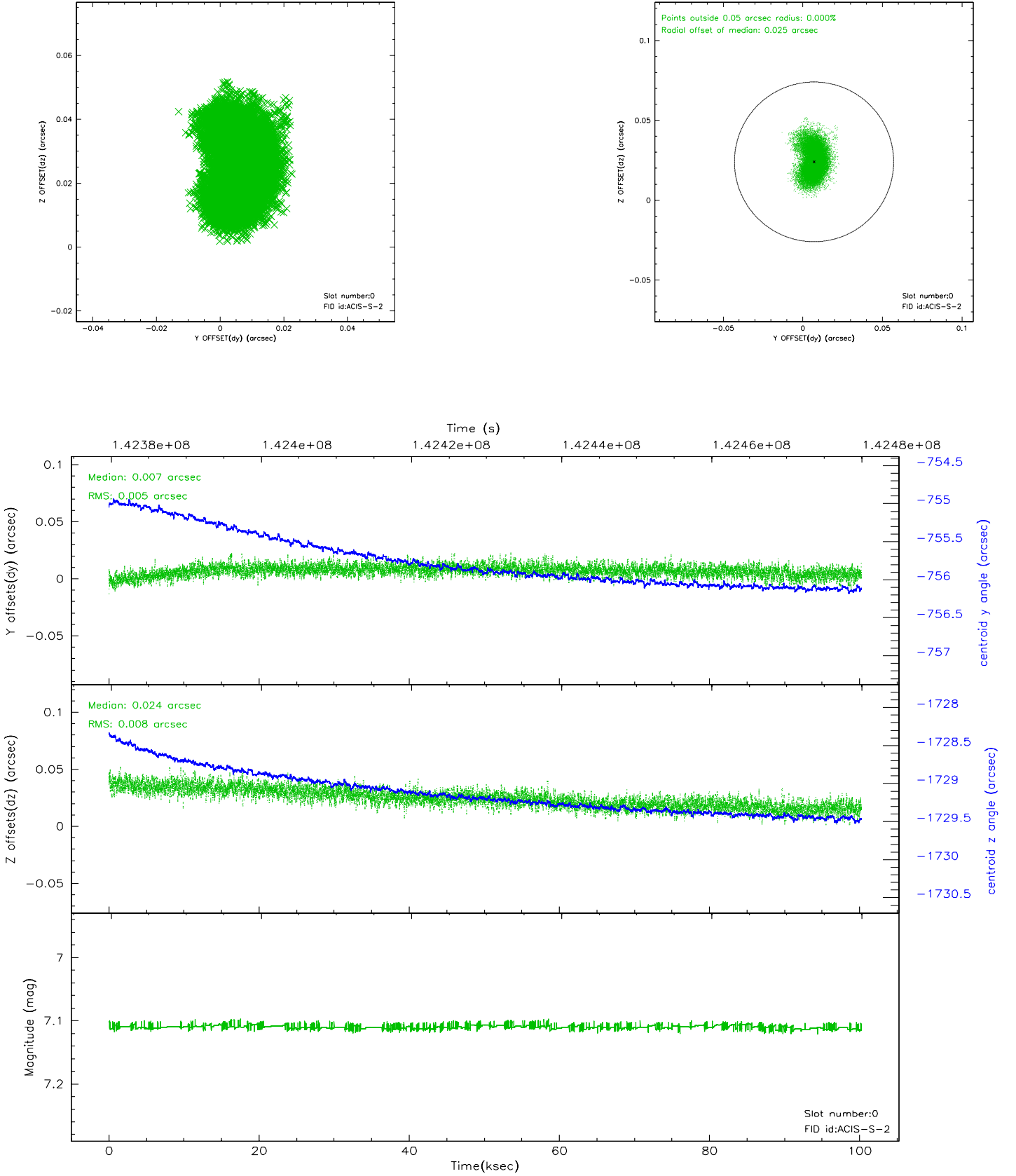


## 2.4.5 Slot 7

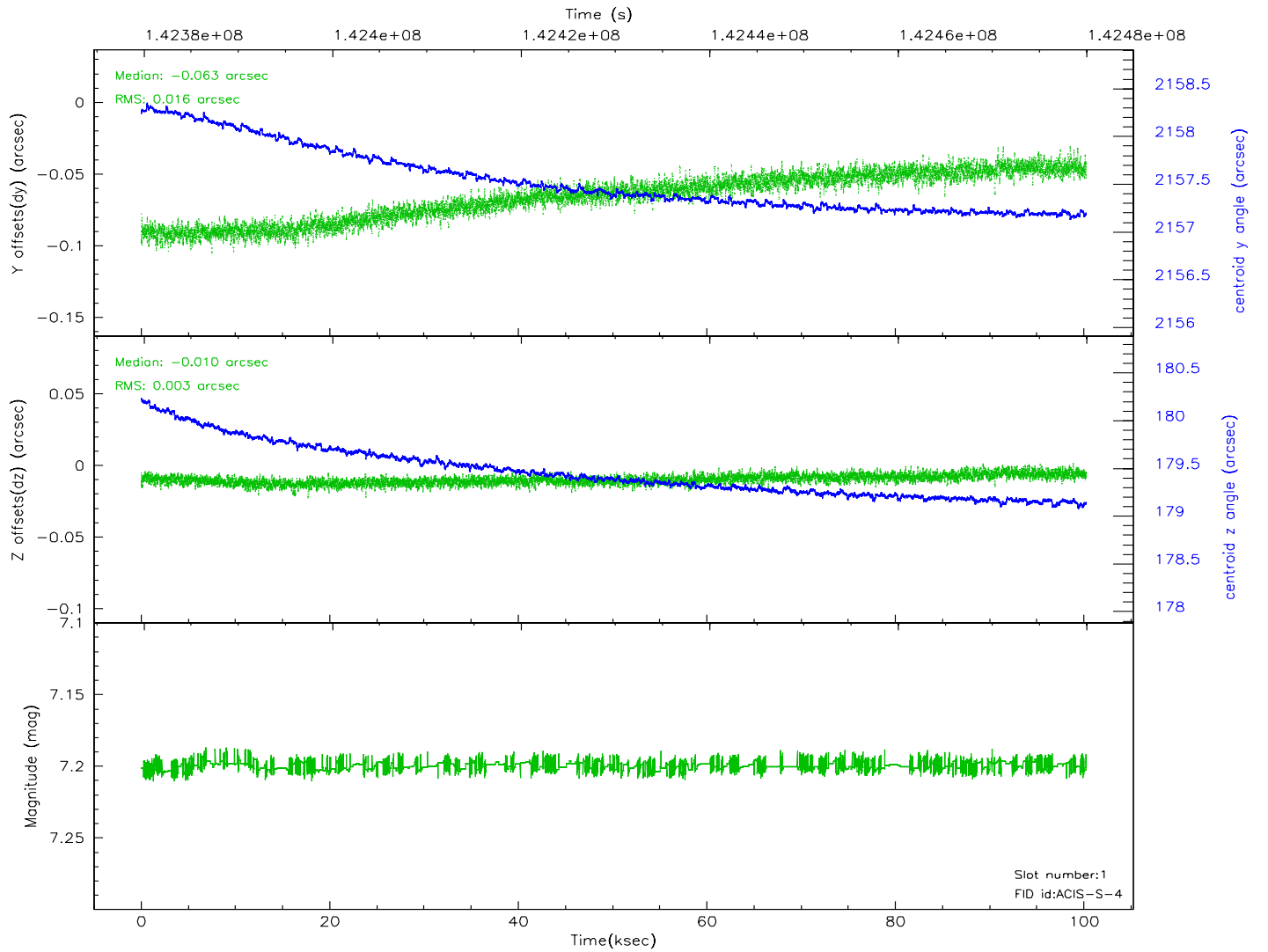
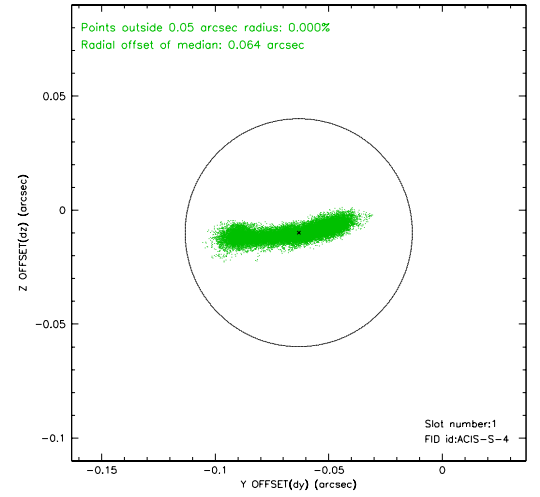
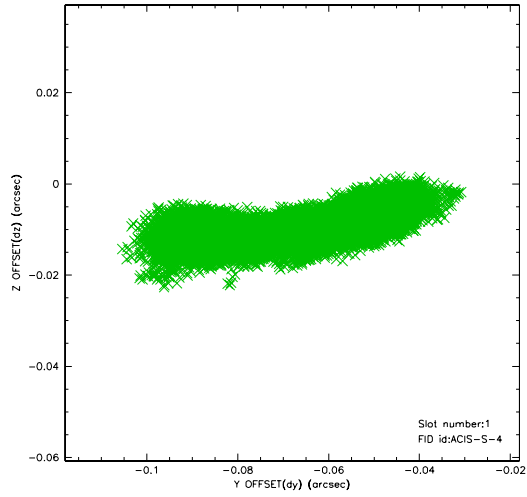


## 2.5 FID Slots

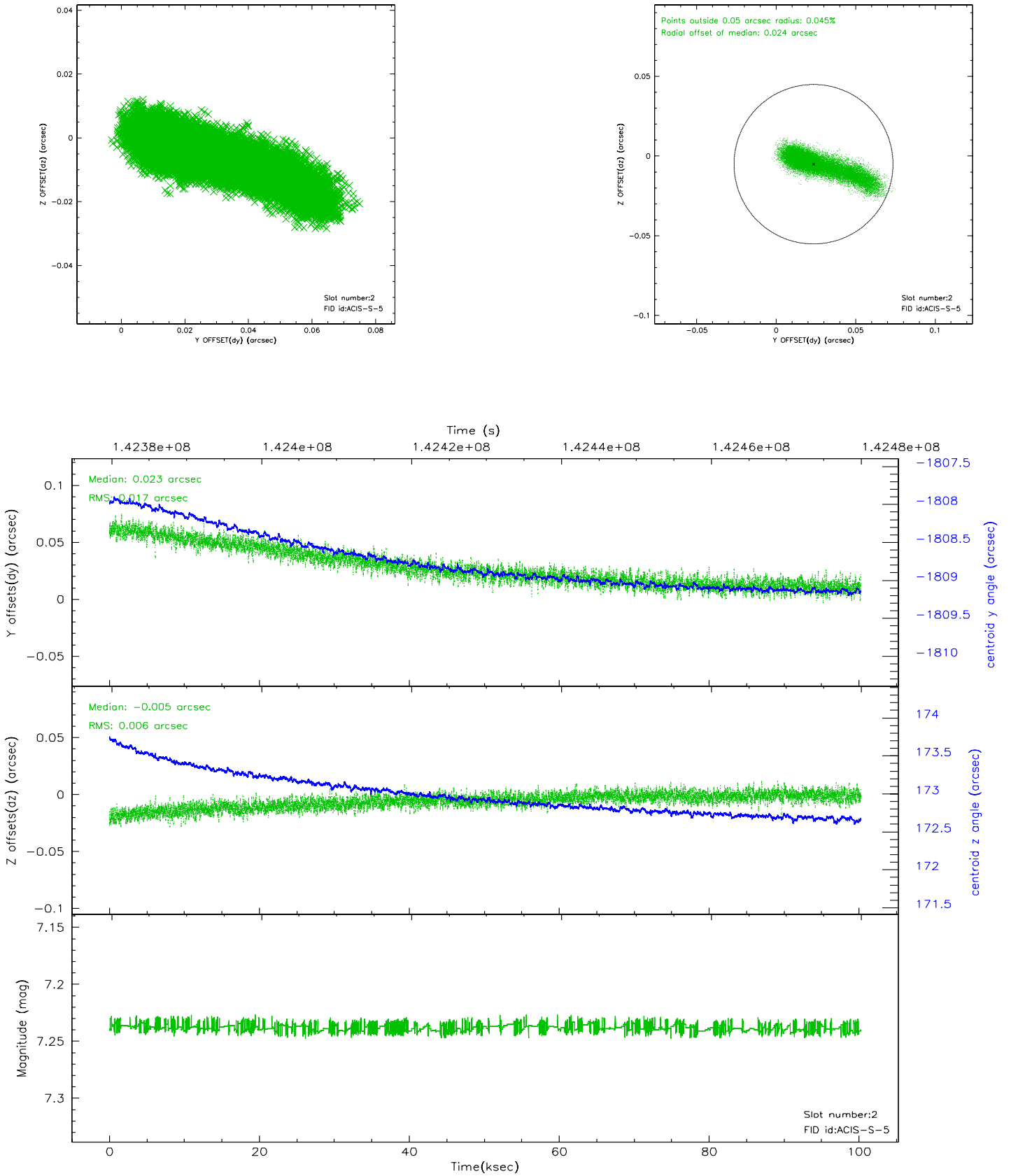
### 2.5.1 Slot 0



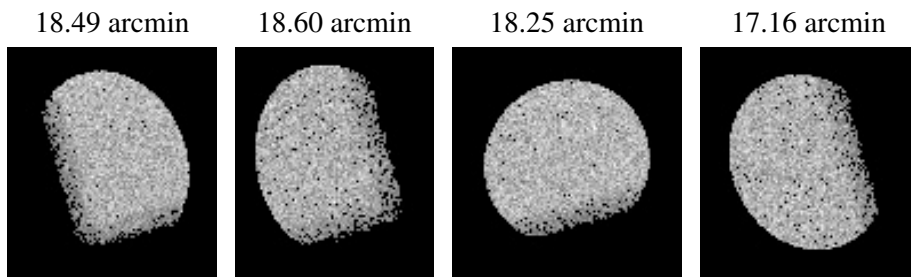
## 2.5.2 Slot 1



### 2.5.3 Slot 2



### 3 Point Sources



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2006.09.25
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	99.929

### A.2 Comments

Roll constraint OK.